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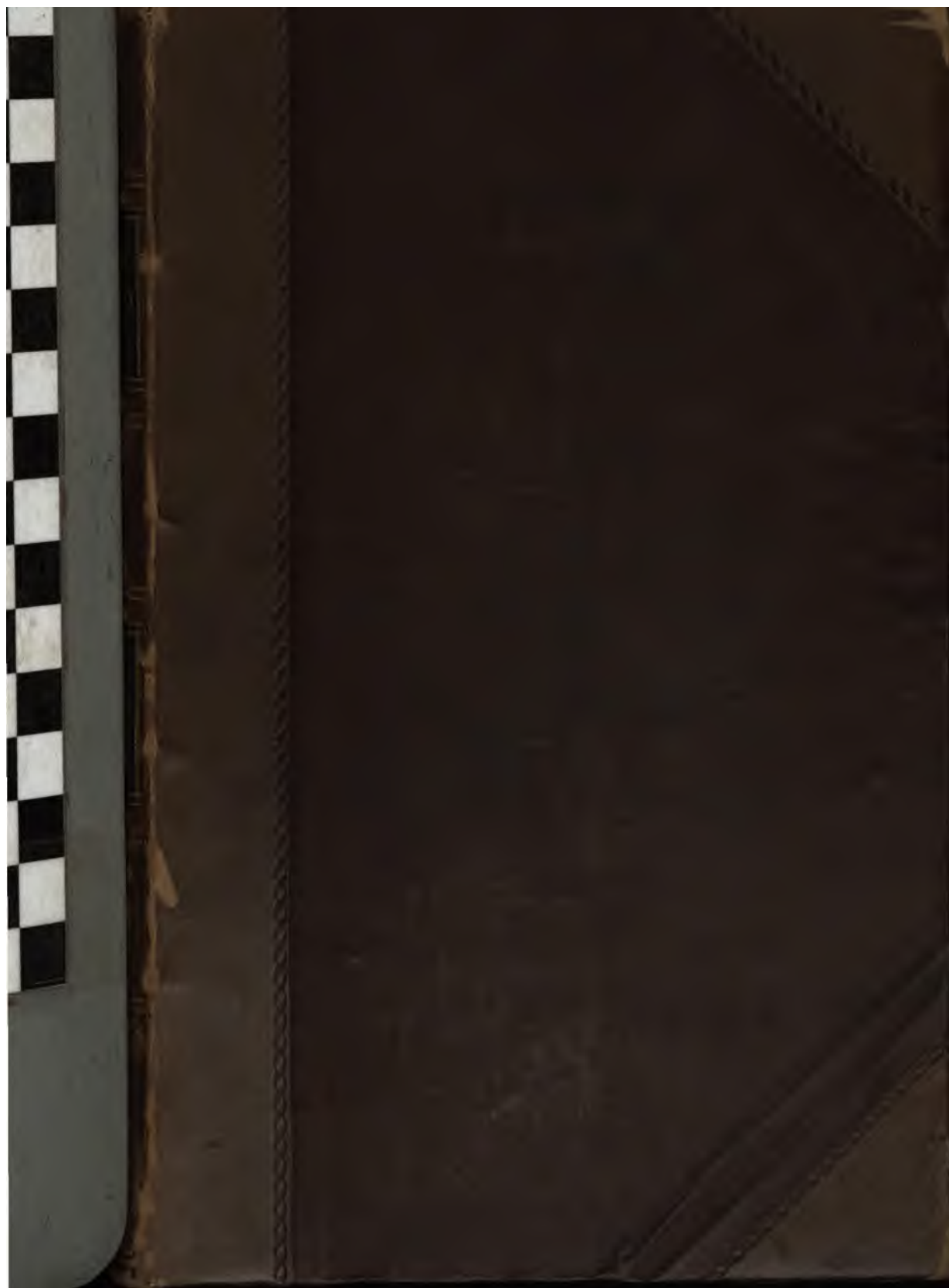
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GENERAL VIEW
OF THE
AGRICULTURE
OF THE
COUNTY OF DORSET:
WITH
OBSERVATIONS ON THE MEANS OF ITS IMPROVEMENT.

DRAWN UP FOR THE CONSIDERATION OF
THE BOARD OF AGRICULTURE
AND INTERNAL IMPROVEMENT.

BY WILLIAM STEVENSON,
AUTHOR OF THE AGRICULTURAL REPORT OF SURREY.

LONDON:

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ADVERTISEMENT.

THE desire that has been generally expressed, to have the AGRICULTURAL SURVEYS of the KINGDOM reprinted, with the additional Communications which have been received since the ORIGINAL REPORTS were circulated, has induced the BOARD OF AGRICULTURE, to come to a resolution, to reprint such as appear on the whole fit for publication.

It is proper at the same time to add, that the Board does not consider itself responsible for every statement contained in the Reports thus reprinted, and that it will thankfully acknowledge any additional information which may still be communicated.

PREFACE.

AS there are some circumstances connected with the drawing up of the Agricultural Report of Dorsetshire, different from those which attend the drawing up of the County Reports in general, and which could not well be stated in the Title-page to this volume, it may be proper briefly to lay them before the Reader in the Preface.

In the year 1810 Mr. Batchelor, author of the Agricultural Report of Bedfordshire, was employed by the Board of Agriculture to survey Dorsetshire, and draw up an account of its Agriculture: this he accordingly did, but when his MS. was put into the hands of some Gentlemen connected with the County, it was their opinion that the Report might be rendered more accurate and complete, if another Survey were made, and the observations and information collected during that Survey, incorporated with Mr. Batchelor's Report. This task was assigned to me; and I accordingly went over the County in the year 1811.

The additions and alterations I have made in Mr. Batchelor's Report, have been derived partly from what I collected during my Survey, and partly from a very useful work published by Mr. Boswell of Dorchester, entitled "The Civil Di-

DORSET.] b

vision of the County of Dorset." This work, besides other statistical information of great local as well as general importance, contains a complete *Nomina Villarum*. I understand Mr. Boswell has some thoughts of publishing the Ecclesiastical and the Military Divisions of the County: if he follow up his design (and no man is better qualified for it) he will render an acceptable service to all connected with Dorsetshire, and set an example to other Counties, highly deserving to be followed.

The Reader will perceive, that in the first part of the Report, I am much indebted to Mr. Boswell's book; in the other parts of the Report, which are, more strictly speaking, Agricultural, I have incorporated the information which was so liberally communicated to me by all I applied to during my Survey, with the MS. Report of Mr. Batchelor. Such parts of his MS. as I deemed irrelevant, I have omitted, and such as were inaccurate I have altered and corrected; but it is but just to him to declare, that on comparing the Notes I took with his Report, I found they agreed in most particulars, and that there was not much necessity to add to, or to alter, the substance of what he had written: my business was rather to make it fit for publication.

W. STEVENSON.

Chelsea, August 12, 1812.

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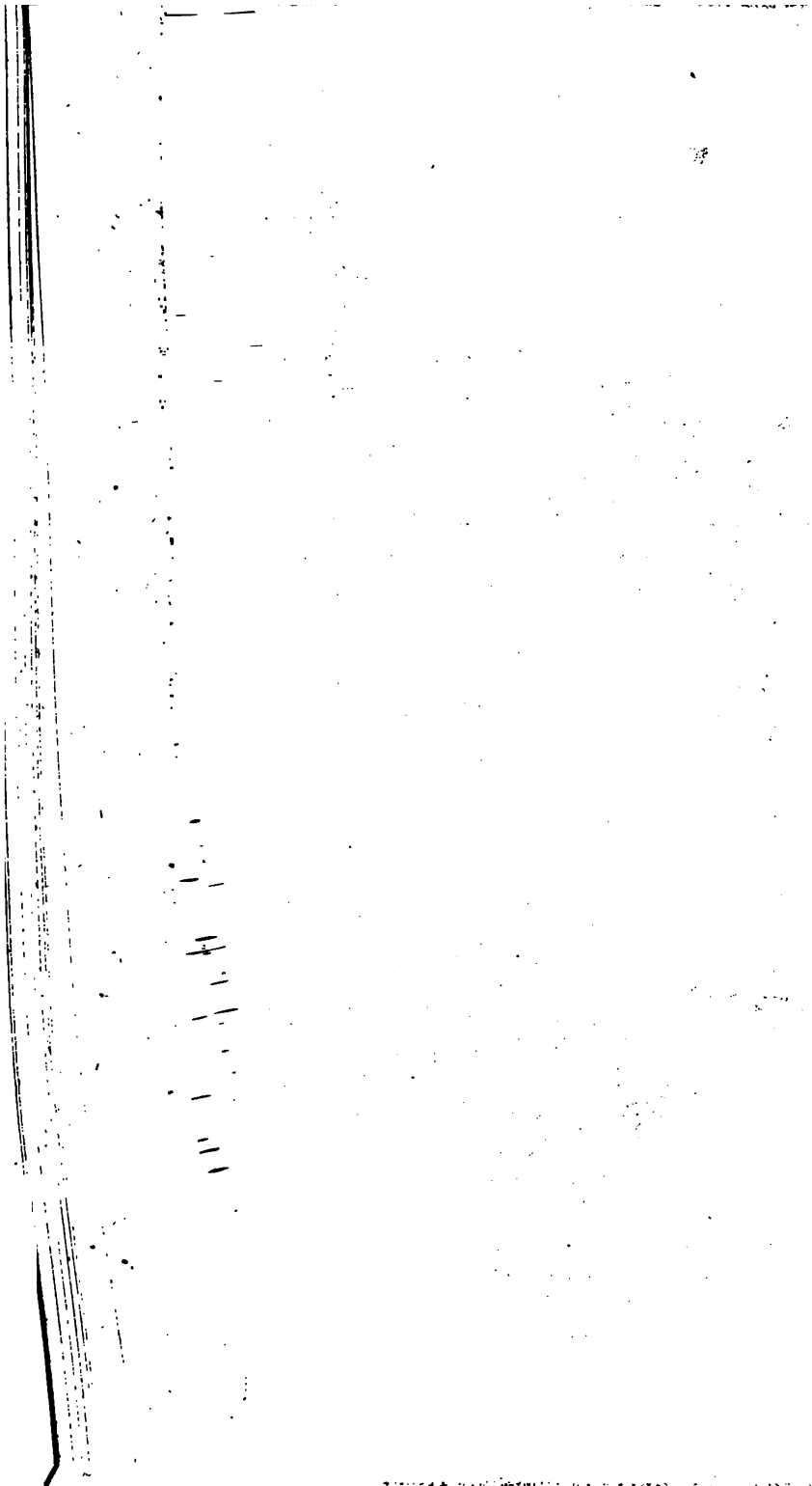
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r. Skrine,
in

Map
of the Soil
DORSETSHIRE.

S O M E R S E T

D E V O N
SHIRE
Lime Regis
from Exeter

H A M P S H I R E

B R I D G E

Difference of the Soils

Chalk	Yellow
Sand	Red
Stonychalk.....	Green
Clay &c.....	Blue

3° Long. West from London 53

Chalk Yellow

Sand.....Red.

Stonychalk....Green.

Clay & Blue

3.^o Long. West from London 56

OF THE

GEOGRAPHICAL STATE AND CIRCUMSTANCES.

Dorsetshire is bounded on the north by Wiltshire and Somersetshire, on the west by Devonshire, on the east by Hampshire, and on the south by the British Channel.—The coast of Dorsetshire is thus described by Mr. Skrine,

in his "General Account of the Rivers of Note in Great Britain."

"Torbay fronts the south-east, and the Devonshire coast lies in the same direction, beyond the Teign, as far as the mouth of the Ex, when it gradually turns towards the south, as it unites with that of Dorsetshire near Lyme, which town is delightfully situated on the slope of several precipitous hills, towards a southern sea, and, though ill built, with steep, narrow, and winding streets, has been preferred by many to the numerous sea-bathing places on this coast. The shore from hence turns gradually to front the south-west, terminating far to the south in the huge rocks of Portland-Island, which is connected with it near Abbotsbury, by that extraordinary beach of pebbles, called the Chesil Bank, which runs many miles parallel with it.

"Thus is that immense gulph formed, which includes the greater part of the south of Devonshire, and much of Dorsetshire; together with the several smaller bays of those counties, between the opposite horns of Start-Point, near King's-bridge, and the Bill of Portland, which is covered by two light-houses. On the opposite side another bay opens, little inferior to this in extent, stretching out to the borders of Hampshire, and bounded by those vast cliffs which terminate the Isle of Wight to the south, between Chale and St. Lawrence.

"The rock of Portland, which is above seven miles in circumference, commands these spacious bays in great perfection, from an abrupt perpendicular height, which overhangs the sea tremendously on every side, except towards the north, where it descends in a steep, but practicable hill, to its little port, close to the Chesil Bank, from which ridge a short ferry is established to the main land of Dorsetshire. Here are found those quarries of white
stone,

stone, which have been so deservedly held in repute, and with which so many of the great buildings in our metropolis, and in the interior of England, have been constructed. Numbers are employed in working them; and this barren rock is thus rendered a populous, as well as a cultivated district, with a neat village in the centre of its level summit, which is adorned with a handsome church.

"The bay of Weymouth opens immediately below Portland; and that tract of Dorsetshire, called the Isle of Purbeck, stretches out on the opposite side the south-east, terminating in the point called St. Alban's Head. The range of cliffs which bound this coast, as well as the shoals called the Race of Portland, are extremely dangerous to shipping, and wrecks are very frequent here in stormy seasons. The cove of Lulworth presents an occasional refuge to small vessels; but its entrance is so narrow as to render it of little use. Immediately behind it, Lulworth castle, the fine seat of Mr. Weld, occupies a charming elevation, and exhibits a grand baronial pile, in the midst of some ornamental grounds, commanding the sea with good effect through a gap in the rocks. In the centre of the Isle of Purbeck, Corfe castle displays its ruined towers on a high eminence with great majesty; and this pleasant district is inhabited by several respectable families, whose seats make a handsome appearance. Turning round the Point of Purbeck, towards the north, the bay of Studland fronts the east, within which the great expanse of Poole harbour intersects the country, marked with several islands, and distinguished by the port of Poole*."

In point of size, Dorsetshire may be considered as rather a large county, compared with the other counties

* Skrine's Rivers and Coasts of Great Britain, p. 294—298.

in England. It is said, from the best information to be procured, that the county may be arranged in the following manner:

	Acres.
Of Arable land	153,588
Pasture land	169,031
Meadow	73,628
Commons	26,916
Downs	31,272
Heath land	29,979
Woods	12,755
Copse	2,779
Plantations	2,620
Waste	1,586
To which add for rivers, water-courses, and roads, land occupied by towns, farm-build- ings, &c.	8,000
Total	<u>512,154</u>

SECT. II.—DIVISIONS.

THE county of Dorset is divided into divisions, hundreds, boroughs, libertics, and tithings.

There are nine divisions, viz. Blandford North, or Blandford; Blandford South, or Wareham; Bridport, or Beaminster; Cerne; Dorchester; Shaston East, or Wimborne; Shaston West, or Shaftesbury; Sturminster; and Sherborne.

In Blandford North, or Blandford, there are three hundreds, viz. Coombes Ditch hundred, which comprises Anderson and Thompson; Blandford St. Mary; Bloxworth; Law Lee; Muston; Winterborne Clenston; Winterborne Whitcombe; and Winterborne Whitechurch.

Pimperne

Pimperne hundred, which includes Ashe, Bryanston, Durweston and Knighton, Eastbury, Fifehead Neville, Hamoon, Haselbury Bryant, Houghton, Langton Long Blandford, Pimperne, Pimperne Warnership, Steepleton Preston, Stickland and Quarleston, Stowerpaine, Tarrant Hinton, Tarrant Keinston, Tarrant Launceston, and Tarrant Rawson.

Rushmore hundred, which includes Morden West, and Winterborne Zelston.

Dewlish liberty, which includes Dewlish and Milborne Churchstone, or Milborne St. Andrew. This latter parish, however, properly speaking, is in Piddletown hundred, and belongs to the division of Dorchester.

In this division there is but one borough, viz. Blandford Forum.

The division of Blandford North, comprises therefore three hundreds, one borough, one liberty, and thirty-two tithings.

The land-rate in this division, at 4*s.* in the pound, amounted to 213*l.* 6*s.* 6*d.*; and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 32*l.* 17*s.* 8*d.*

The second division, Blandford South, or Warcham, comprises five hundreds, viz.

Beer Regis hundred, which comprises Beer Regis, Kingshold, Milborne Styleham, and Winterborne Kingston.

Hundredsbarrow hundred, which includes Affpiddle, Briantspiddle, Hyde, Shitterton, Turnerspiddle, and Worgrett.

Hasilor hundred, comprising Arne, Blackenwell, (commonly called Blatchknowl), Bradle, Creech East, Church Knowle, Eggleston, which is a separate tithing, sometimes, included in Tyneham parish; Earlsmead and Haymoor,

Encombe, Holme East, Holme West, Kimmeridge, Povington, a separate tithing, sometimes included in Tyneham parish; Steeple, Stoborough, and Tyneham.

Rowbarrow hundred, which includes Afflington, Herson, and Langton Matravers, Kingston, Langton Wallis, Ower, Rempston, Rollington, Sandwich, Studland, Whitecliff, and Worth Matravers.

Winfrith hundred, which comprises Burton East, a separate tithing, and sometimes included in Winfrith parish; Coombe Keynes, Chaldon East, Galton, Holworth, Lulworth East, Moreton, Poxwell, Ringstead, Stoke East, Warmwell, Winfrith Newburgh, and Woodsford.

There are also three liberties in the division of South Blandford, viz. Bindon liberty, Owermoigne liberty, and Stoborough liberty.

Bindon liberty contains Bexington, Chaldon Herring, Creech Grange—a separate tithing, sometimes included in Steeple parish; Lulworth West, Longcotts, Fordington Mill-street, Pulham East, Worth West, and Wool.

Owermoigne liberty contains only Owermoigne; and Stoborough liberty, Stoborough.

There are two boroughs in this division, viz. Corfe Castle, and Wareham.

The division of South Blandford, or Wareham, therefore, contains five hundreds, two boroughs, three liberties, and sixty-four tithings.

The land-rate, at 4*s.* in the pound, amounted to 3308*l.* 13*s.* 7*d.*; and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 43*l.* 16*s.* 6*d.*

The third division, Bridport, or Beaminster, contains five hundreds, viz. Beaminster, Beaminster Forum and Redhone, Eggerton, Godderthorne, and Whitechurch
Canno-

Cannonicorum. It also contains four liberties, viz. Broadwindsor, Frampton, Lothers and Bothenhampton, and Poorstock.

Beaminster hundred, comprises Ashe, Beaminster, Bowood, Cheddington, Chardstock North, Chardstock South, Corscombe, Langdon, Melplish, Netherbury, Stoke Abbas, *alias* Abbots, and Wambrooke.

The hundred of Beaminster Forum, and Redhone, contains Bradpole, Littlewindsor, Mapperton, Mosterton, Over Kingcombe, Poerton North, Poerton South, *cum* Loscombe, and Perriott South.

Eggerton hundred, comprises Askerwell, Hooke and Witherston, Kingcombe and Wraxall, Longbredy, Matravers North and South, Milton West, Nettlecombe, and Winterborne Abbas.

Godderthorne hundred, contains Allington, Shipton-gorge, Sturthill, Up-Loders, and Walditch.

Whitechurch Cannonicorum hundred, comprises Burstock, Chideock, Charmouth, Catherston, Lewston, Colway, Pilsdon, Stockland North, Stockland South, Stanton St. Gabriel, Symondsbury North, Symondsbury South, Marshwood, Wootton Fitzpaine, Gridleshay, Sarum, Stoke Atram, Wootton Abbots, Wells, and Wild.

The liberty of Broadwindsor contains Broadwindsor, Childhay, Drempton and Dibbeford.

The liberty of Frampton contains Benville, Bettiscombe, Bincombe, Burton Bradstock, Came, Compton Vallence, and Frampton.

The liberty of Lothers and Bothenhampton, contains only two places of those names.

Poorstock liberty, contains Poorstock.

There are two boroughs in this division, viz. Bridport, and Lyme Regis.

The division of Bridport, or Beaminster, therefore, comprises five hundreds, two boroughs, four liberties and sixty-eight tithings.

The land-rate, at 4*s.* in the pound, amounted to 6117*l.* 3*s.* 11*d.* and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 99*l.* 16*s.* 1½*d.*

The division of Cerne contains three hundreds; viz. Buckland Newton, Cerne, Totcombe, and Modbury, and Whiteway.

The hundred of Buckland Newton, comprises Brockhampton, Buckland Newton, Duntish, Mappowder, Minterne Parva, Knowle, Plush, Pulham East, Pulham West, Wootton Newland and Wootton Glanville. These two last are separate tithings, and are sometimes included in one.

The hundred of Cerne, Totcombe and Modbury, contains Cattistock, Cerne Abbas, Compton Abbas, Fifehead Sydling, a separate tithing, sometimes included in Sydling St. Nicholas parish, Godmanston, Hilfield, Middlemarsh, Nether Cerne, Up-Sydling, and Wylde Court.

The hundred of Whiteway, contains Chesselborne, Hilton, Ibberton, Milton Abbas, Melcombe Horsey, Stoke Wake, and Woolland.

There are also three liberties in this hundred, viz. Alton Pancras, containing only a place of that name; Piddletrenthide, containing three places of that name, distinguished by the addition of Higher, Middle, and Lower, and Minterne Magna; and Sydling St. Nicholas liberty, containing Sydling St. Nicholas.

In the division or the subdivision of Cerne, as it is more properly called, there is no borough town.

This division, therefore, contains three hundreds, three liberties, and thirty-four tithings.

The land-rate at 4*s.* in the pound, amounted to 2562*l.* 1*s.* 10*d.*; and when a single county-rate is raised;

the

the sum paid out of the poor's rate amounts to 42*l.* 14*s.*

The division of Dorchester includes five hundreds; viz. Culliford Tree, George, Piddletown, Tollerford, and Uggscombe.

In Culliford Tree hundred, there are, Ashdon and Clendon, Broadway, *cum* Buckland Ripers, Cripston and Farringdon, Chickerill West, Herringston and Clapcotts, Knighton West, Littlemayne, Osmington, Radipole, Stafford East and Lewell, Stafford West, Stottingway, Whitcombe, and Winterborne Monkton.

George hundred, contains Brockhampton, *cum* Stinsford and Frome Bellet, Bradford Peverell and Muckleford, Broadmayne, Charminster, Colleton Row, Frome Whitfield, Forston, Grimston, Stratton, and Winterborne St. Martin.

Piddletown hundred, contains Athelhampton, Burleston, Ilsington, Little Chesselborne, Little Piddle, Lovard, Milborne St. Andrew, Piddletown, Tincleton Cliff and Throop, Tolpiddle and Walterston.

In Tollerford hundred, there are Chilfrome, Chelborough West, which with Chelborough East, or Luccumbe, are sometimes considered as separate tithings, and sometimes included in one; Cruxton, Evershot, Frome St. Quintin, Frome Vauchurch, Maiden Newton, Melbury Sampford, Rampisham, Toller Porcorum, Toller Fratum, and Winford Eagle.

Uggscombe hundred, contains Abbotsbury, Chilcombe, Corton, Fleet, Friar Waddon, Littlebredy and Kingston Russell, Langton Herring, Litton Cheney, Portisham, Phillyholme in Hawkchurch, which with Wyldcourt in Cerne hundred, composes the parish of Hawkchurch; Puncknowle, Redden and Elsworth; Shilvinghampton, Swyre, and Winterborne Steepleton.

There

There are also six liberties in this division, viz. Fordington liberty, which comprises Dalwood, Fordington, and Hermitage;—Portland liberty, which contains Portland; Piddlehinton liberty, which contains Piddlehinton;—Sutton Pointz liberty, which contains Preston, Putton, and East Chickerill, Stockwood and Sutton Pointz;—Wabyhouse liberty, which contains Wabyhouse in Upway: this tithing, Elwell and Stothingway, in Culliford Tree hundred, compose the parish of Upway; and Wyke Regis and Elwell liberty, which contains Elwell and Wyke Regis.

In the division of Dorchester there are two boroughs, viz. Dorchester, and Weymouth and Melcombe Regis.

This division therefore comprises five hundreds, two boroughs, six liberties, and eighty-one tithings.

The land-rate at 4*s.* in the pound, amounted to 5980*l.* 3*s.* 5*d.*; and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 93*l.* 14*s.* 9½*d.*

The division of Shaston East, or Wimborne, includes eight hundreds, viz. Badbury, Cranborne, part of which lies in Shaston West division; Cogdean, Knowlton, Loosebarrow, Monkton-up-Wimborne, Sixpenny Handley; part of this lies in Shaston West division; and Wimborne St. Giles.

Banbury hundred, contains Abbots-street, Barnesly, Cowgrove, Chalbury, *cum* Didlington, Gussage St. Michael, Hinton Martel, Hinton Parva, Horton, Leigh, Moore Critchell, Preston, *cum* Crawford, Shapwick, Stone, Thornhill, Wimborne-borough, and Wimborne-minster.

In Cranborne hundred, are Alderholt, Cranborne-borough, Cranborne-priory, Cranborne-tithing, Edmondsham, Hampreston, Holwell, Lovetown, a separate tithing, sometimes

sometimes included in Tarrant Monkton parish ; Parley West, Pentridge, Petersham, Tarrant Rushton, Wimborne-all-Saints, and Witchampton.

Cogdean hundred, contains Canford Magna, Charlton Marshall, Coombe Almer, Corfe Mullen, Hamworthy, Kingston and Parkston, Lytchett Matravers, Lytchett Minster, Longfleet, and Sturminster Marshall.

Knowlton hundred, contains Bowerswayne, which is sometimes included in Gussage-all-Saints parish ; Critchell Goves, Critchell Lucy : these two form Long Critchell ; Gussage-all-Saints, Phillipson, which is sometimes included in Gussage-all-Saints ; Knowlhill, sometimes included in Woodlands parish ; and Woodlands.

In Loosebarrow hundred, there are Almer and Maperton, Charborough, Morden East, and Spottisbury, *cum* Crawford Magna.

Monkton-up-Wimborne hundred, contains Blagdon, Boveridge, Boveridge-heath, Chettle, Monkton-up-Wimborne, and Tarrant Monkton.

Sixpenny Handley hundred, contains Gussage and Minchington, and Handley.

Wimborne St. Giles hundred, comprises St. Giles, and West Woodyates.

In the division of East Shaston, there are no liberties, and no boroughs : the number of tithings is sixty-two.

The land-rate at 4*s.* in the pound, amounted to 4458*l.* 9*s.* 4*d.* ; and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 66*l.* 13*s.* 4*d.*

In the division of Shaston West, or Shaftesbury, there is not a single hundred : there is one borough, viz. Shaftesbury ; and there are only two liberties, and twenty-four tithings.

The borough of Shaston, or Shaftesbury, is generally considered

considered as consisting of three parishes, viz. Holy Trinity, St. James, and St. Peter; the whole of the parish of St. James, however, is included in the liberty of Alcester, and all returns are made by the constable of that liberty.

Though, strictly and properly speaking, there are no hundreds in this division, yet, as was mentioned under the division of East Shaston, several of the tithings of the hundreds of Cranborne and Sixpenny Handley, lie within its boundaries and jurisdiction.

The tithings of Cranborne hundred, which lie in the division of West Shaston, are the following: Ashmore, Bagbor, Belchalwell, Farnham, Shilling Okeford, Tarrant Gunville, and Turnworth, *alias* Turnwood.

The tithings of Sixpenny Handley hundred, which lie within the division of West Shaston, are the following: Cann, *cum* Melbury West, Compton Abbas East, Compton Abbas West; these are sometimes considered as separate tithings, and sometimes included in one; Funtmell Magna, Hargrove, *cum* Bedcister, Iwerne-minster, Melbury East, Orchard East, and Orchard West.

The two liberties in this division are Alcester, or Alincester, which contains only a place of that name; and Gillingham, which contains Bourton, Gillingham, Gillingham Free, a separate tithing, sometimes included in Gillingham parish; Milton, and Pierson, and Motcombe.

In the division of West Shaston, or Shaftesbury, therefore, there is one borough, two liberties, and twenty-four tithings.

The land-rate at 4*s.* in the pound, amounted to 238*l.* 17*s.* 4*d.*; and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 34*l.* 1*s.* 8*d.*

The division of Sturminster, comprises three hundreds,

dreds, viz. Brownshall, Redlane, and Sturminster Newton-castle.

In Brownshall hundred, are Caundle Stourton and Woodrow, Caundle Wake, Gomershay, Stalbridge, Stalbridge Weston, Stoke Gaylard, and Thornhill.

Redlane hundred, contains Buckhorn Weston, Child Okeford, Fifehead Magdalen, Hanford, Iverne Court-nay, *alias* Shroton, Keynton Magna, Manston, Siltton, Stower East, Stower West, Sutton Waldron, Thorton, and Todbere.

Sturminster Newton Castle hundred, contains Hinton St. Mary, Marnhull, Margaret Marsh, Okeford Fitzpaine, Newton and Cober, which two make up Sturminster Newton.

In this division there is also one liberty, viz. Stower Provost, which contains a place of the same name.

There is no borough in Sturminster division.

This division, therefore, contains three hundreds, one liberty, and twenty-seven tithings.

The land-rate, at 4*s.* in the pound, amounted to 301*l.* 13*s.* 10*d.*; and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 44*l.* 2*s.* 5*d.*

In the division of Sherborne there are two hundreds; viz. Sherborne and Yetminster.

Sherborne hundred, contains Abbotsfee, Overcombe, Nethercombe, Eastbury, Westbury, Houndstreet, Newland borough—these form the town of Sherborne; All-weston, *cum* Folke, Beer Hacket, *alias* Hackwood, Bradford Abbas, Caundle Bishop, Caundle Purse, Castleton, Down and Marsh, Haydon, Holnest, Lydlinch, Lillington, Leweston—this tithing is sometimes included in the chapelry of Holnest; Longburton, Osborne, Over Compton, Nether Compton, North Wootton, Pinford, Thornford, and Up-Cerne.

Yetminster

Yetminster hundred contains Batcombe,—this parish is sometimes included in Melbury Bubb; Chetnole, Clifton, Leigh, Melbury Bubb, Melbury Osmond, Newland, Woolcombe, and Yetminster.

There are also two liberties in this division, viz. Halstock and Ryme Intrinseca, each containing only a place of its own name.

In the division of Sherborne, therefore, there are two hundreds, no borough town, two liberties, and thirty-eight tithings.

The land-rate at 4s. in the pound, amounted to 1760*l.* 16*s.* 5*d.*; and when a single county-rate is raised, the sum paid out of the poor's rate amounts to 42*l.* 3*s.* 6*d.*

In the whole county of Dorset, it appears, therefore, that there are thirty-four hundreds, eight borough towns, twenty-two liberties, and four hundred and thirty tithings.

The land-rate at 4s. in the pound, amounted to 32,751*l.* 16*s.* 5*d.* and the county rate to 500*l.*

Ecclesiastical Divisions, &c.

The county of Dorset is in the diocese of Bristol; and is divided into five Deaneries, viz. the Deanery of Bridport, in which are forty-eight parishes; the Deanery of Dorchester, which contains forty-five parishes; the Deanery of Whitechurch, which has fifty-five parishes in it; the Deanery of Pimperne, in which are thirty-two parishes; and Shaston Deanery, which contains fifty-six parishes. The Archdeacon of Dorset has the jurisdiction of the whole diocese of Bristol, in which this county is entirely included.

The

The Deanery of Bridport contains the following rectories, vicarages, &c.

Abbotsbury, V.	Longbredy, R.
Abbotstock, R.	Mapperton, R.
Allington.	Marsh Wood, V.
Askerwell, R.	Martinstown, V.
Bettescomb, R.	Melbury Sampford, R.
Bradpole, V.	Melcombe Bingham, R.
Bridport, R.	Netherbury, V.
Broadwindsor, V.	Newton Maiden, R.
Burstock, V.	Perret South, R.
Burton Bradstock, R.	Pillsdon, R.
Cattistock, R.	Poorstock, V.
Cheddington, R.	Poorton, V.
Chilborough E. R.	Portisham, V.
———— W. R.	Puncknowle, R.
Chilcombe, R.	Radleston, R.
Child Frome, R.	Rampisham, R.
Compton Abbas, R.	Simond's Borough, V.
Corscombe, R.	Stockland, V.
Corton, R.	Swyre, R.
Dalwood, V.	Toller Porcorum, V.
Hawkchurch, R.	Walterstone, R.
Hoke, R.	Wambrooke, R.
Langton Herring, R.	Whitechurch Canon, V.
Lewcombe, R.	Winterborne Abbas, R.
Letton, R.	Winterborne Steepleton, R.
Loders, V.	Wootton, R.

The Deanery of Dorchester contains the following rectories, vicarages, &c.

Bincombe, R.	Broad Way, R.
Bradford Peverell, R.	Buckland Ripers, R.
Broad Main, R.	Chaldon, V.
	Chickerill

Chickerill E. R.	Stafford W.
Coombe Keynes, V.	Steeple, R.
Compton Valence, R.	Stoke, R.
Fordington, V.	Studland, R.
Frampton, V.	Teynham W. R.
Frome, R.	Tinckleton, R.
Knighton, R.	Toller Fratrum, V.
Knowle, R.	Upway, R.
Langton, R.	Warmwell, R.
Lulworth.	Week, R.
Morton, R.	Wenford, R.
Osmington, R.	Weymouth, R.
Owre Moigne, R.	Winfrith, R.
Portland, R.	Winterborne, R.
Poxwell, R.	————— Monkton, R.
Preston, V.	————— St. Martin, V.
Radipole, R.	————— Save, R.
Stafford E. R.	Worth, V.

The Town of Dorchester contains the rectories of All Saints, Trinity, and St. Peter's.

In the Deanery of Whitechurch are the following rectories, vicarages, &c.

Affiddle, V.	Cerne, V.
Aliner, R.	—— Upper, V.
Alton, V.	Charborough, R.
Blandford St. Mary, R.	Cheselbourne, R.
Bloxworth, R.	Durweston, R.
Bockhampton, R.	Evershot, V.
Bovington, R.	Fifehead Neville, R.
Boveridge, R.	Frome Quinton, R.
Bryanston, R.	Godmanston, R.
Buckland Newton, V.	Grange, R.
Burston, R.	Haselbury, R.
Canford, V.	Holton, V.

Ibberton,

Ibberton, R.	Puddle Trenchard, V.
Kencombe, R.	Pulham, R.
Kington Lacey, R.	Spottisbury, R.
—— Russell, R.	Stickland, R.
Lytchett Matravers, R.	Stinsford, V.
Lytchett Minster, R.	Stoke, R.
Mappowder, R.	Sturminster Marshall, V.
Melcombe Horsey, R.	Sydling, V.
Melcombe Regis, R.	Tolpiddle, V.
Melplish, R.	Thompson, V.
Milborne St. Andrew, V.	Turner's Piddle, R.
Milton Abbas, V.	Turnwood, R.
Minterne Magna, R.	Whitechurch, V.
Okeford, R.	Winterborne Zelstone, R.
Puddle Hinton, R.	—— Kington, R.
—— Parva, R.	Wootton Stanfield, R.
—— Town, R.	

The Deanery of Pimperne contains the following rectories, vicarages, &c.:

Ashmore, R.	Horton, V.
Blandford, V.	Houghton, R.
Chalbury, R.	Langton Silton, R.
Chettle, R.	Parley West, R.
Cranborne, V.	Pentridge, R.
Critchell Long, R.	Pimperne, R.
—— Parva, R.	Ruston, R.
Edmonsham, R.	Shapwick, V.
Farnham, R.	Stanbridge, R.
Glissett, R.	Steepleton, R.
—— St. Michael's, R.	Stower Paine, V.
Hammonds, R.	Tarrant Gunfield, R.
Hampreston, R.	—— Hinton, R.
Hinton Martell, R.	—— Keinston, R.
DORSET.]	Tarrant

Tarrant Launceston, R.	Wimborne All Hallows, R.
—— Monkton, V.	Wimborne Minster, R.
—— Rughton, R.	—— St. Giles, R.
Wichampton, R.	

The Deanery of Shaston contains the following rectorics, vicarages, &c.:

Batcombe, R.	Manstone, R.
Belchalwell,	Marnhull, R.
Bell,	Melbury Abbots, R.
Bradford Abbas, V.	—— Bubb, R.
Buckhorn Weston, R.	—— Ormond, R.
Burton, R.	Oborne, V.
Caundle Bishops, R.	Okeford Superior, R.
—— Purse, R.	—— Inferior, R.
Compton East, R.	—— Fitzpaine, R.
—— Nether, R.	Ryme, R.
—— Over, R.	Sherborne, V.
Iwerne Courtney, R.	Silton, R.
—— Minster, V.	Stalbridge, R.
Fifehead Magdalen, V.	Stockwood, R.
Folke, R.	Stower, R.
Fontmell East,	Stratton,
—— West, V.	Sturminster Newton, V.
Gillingham, V.	Sutton Waldron, R.
Holwell, R.	Thornford, R.
Kington Magna, R.	Todbere, R.
Lillington, R.	Yetminster, V.

In the Town of Shaftesbury are the rectories of St. Martin, St. Peter, Trinity, St. Lawrence, and St. Rumbold, and the vicarage of St. James.

There

There are also in Dorsetshire the following rectories, vicarages, &c. which lie in the Deanery of Sarum :

Alton Pancras, Pec.	Castle Town, Pec.
Anderston, R.	Chardstock, V.
Athelhampston, R.	Charminster, Pec.
Beaminster, V. pec.	Clifton, R. pec.
Beer, V.	Corfe Castle, R.
Caundle Marsh, R.	Lyme Regis, V.
Canford Parva, Pec.	

In Wareham are the rectories of St. Peter, St. Michael, St. Martin and Trinity.

This county forms part of the Western Circuit ; the assizes for which were anciently held at Sherborne, and sometimes, though rarely, at Shaftesbury ; but now they are held at Dorchester.

The Quarter Sessions for the county are held
 The first week after Epiphany, ... at Blandford.
 The first week after the close of Easter, ... at Sherborne.
 The first week after the translation of } at Shaftesbury.
 Thomas à Becket, ... }
 The first week after Michaelmas, ... at Bridport.

The situation of the town of Dorchester is exceedingly fine ; it lies on an ascent above the river Frome, by which it is bounded on the north side, at the distance of nearly six miles from the British Channel. Large, extensive, and pleasant downs, interspersed with corn-fields, are seen from the south and west. The avenues to the town, on every side, consist of pleasant walks, planted with rows of limes and sycamore trees.

The form of the town is an irregular square, but from the appearance of it, and from certain remains

which are still visible, it must formerly have made up a complete square. It is very regularly built, and consists principally of three streets, which unite near the middle: they are well paved, and remarkably clean; but like all the towns in this county, there is a dulness and want of activity very conspicuous in it.

The building in Dorchester most worthy of notice, and best worth describing in a statistical performance, is the new gaol. It is built on the plan of Mr. Howard, and the expense of the erection was 16,179*l*.

The external appearance of this building is strikingly handsome; and in its interior, there is every convenience appropriate to its destination. The buildings consist of a lodge, keeper's house, chapel, debtors' day-rooms, female fines and female debtors' rooms; visiting rooms for male debtors; fines; felons' infirmaries, &c. There are also four wings, which, though they are detached, communicate with the centre building in each story, by cast-iron bridges, sprung from the several galleries. The separate sleeping cells, which will accommodate eighty-eight prisoners, are distributed in the different buildings; a provision is also made for accommodating more male debtors, in case they exceed that number.

The condemned prisoners are lodged in four cells, which are light and airy; and such as are refractory are confined to four that are perfectly dark, over the others: there are likewise six reception cells, which are fitted up in the lodge.

The arrangement of the prison, and the consequent distribution of the prisoners, are such, that not only are the male separated from the female; but the prisoners of each sex are also divided into classes, and for each class, separate sub-divisions are appropriated, by means of distinct staircases, with courts, work-rooms, &c. to each.

A com-

A commodious room, fitted up with proper attention to convenience, is also set apart for the female fines, and female debtors respectively: these rooms are placed over the dormitories of the male debtors, and under the two infirmaries, detached from every other part of the building, except the court and house of the keeper, to which they have access through the chapel.

As soon as any prisoners are brought, they are placed in the reception cells, where they continue until the surgeon of the prison examines into their state of health, and until they are thoroughly cleaned in a cold or hot bath, built for that purpose. Such as are in an infectious condition, are confined in these reception cells till the surgeon pronounces it safe to remove them into the interior parts of the prison. As soon as they are in a proper condition to be removed, they are clothed in the gaol uniform, and distributed according to their sex and class. The clothes which they brought with them are put carefully by, in order to be given them on their liberation.

The task-master and one of the turnkeys have apartments in the lodge; which contains also a wardrobe; a room with a mill for grinding corn: in this room every thing is to be found necessary for dressing the flour, as all the corn for the supply of the prison is ground and prepared here. There are also a bakehouse, and a brewhouse, with iron boilers; an oven, and other apparatus for cookery for the prisoners. On the top of the lodge, there is a flat roof, which is covered with copper, on which the executions take place, in view of all the criminal prisoners.

Dorchester was formerly remarkable for its manufactory of broad-cloth and serge. The manufactory of the former is entirely at an end; and very little is done in the latter trade.

Weymouth is situated on the British Channel, at "the bottom of a most beautiful bay, which forms nearly a semicircle, making a sweep of more than two miles, admirably protected from all hills by the surrounding hills." The shore is covered with a fine sand, and is so flat, that one might walk nearly three hundred feet into the sea without being more than knee deep. On it may frequently be found a great variety of very rare and curious shells; while the botanist may be much enriched by the *fuci* which are thrown upon the beach, as it is probable, that in the course of a very few weeks, most of those which can be found in the south of England would be thrown up by the sea.

Wareham is situated on a peninsula formed by the rivers Frome and Piddle, near their confluence with the waters of Poole harbour: it was formerly a very large and populous town, but frequent ravages by fire, devastations by war, and principally the retreat of the sea from its port, have made it a very inconsiderable place.

The town is situated on a rising ground, sloping gently to the south. Its form is very regular, being nearly a long square, the streets intersecting one another at right angles, particularly the four principal ones, which divide the town into regular quarters. The area of the town is computed at about one hundred acres.

Poole, which is a Town and County of itself, probably takes its name from the bay on which it stands, as, from the smoothness of the water, it has more the appearance of a pool than an arm of the sea, which in reality it is. Poole stands on a peninsula, which is connected by a very narrow isthmus with the main-land. The ground which it occupies is about three quarters of a mile in length, and half a mile in breadth. It is composed of four principal streets, which run nearly N. E.
and

and S. W. On the land side a wide desolate heath extends close up to the town.

The harbour of Poole extends about four miles from North Haven to Redclyffe Attwell, on the Purbeck shore. The depth of water will admit any vessel which does not draw more than fourteen feet. Dr. Maton, in his *Observations on the Western Counties of England*, notices a singular appearance, with respect to the tides in Poole harbour:—"The sea ebbs and flows four times in twenty-four hours; twice when the moon is at S. E. and N. W. and twice when she is at south by east and north by west. Two of these tides seem to be occasioned by the Isle of Brownsea, which, obstructing the water as it runs towards the mouth of the harbour, causes it to flow back again: this is the second flood. In the harbour the ebb and flood appear alternately every six hours. The ebb at low water, between the coast of Hampshire and the Isle of Wight, runs so strong, that it shoots into Poole harbour, which lies in the line of its course; so that when it is low water at Hurst Castle, it is high water here*."

Poole appears to have risen into eminence and wealth principally in consequence of the sea having, in a great degree, left Wareham; or, to speak more correctly, in consequence of there being no longer depth of water sufficient to carry large vessels so high up as Wareham. Besides this circumstance, however, the situation of Poole in every respect is much preferable for trade to the latter place;—it is near the entrance from the Channel; and the navigation up to Wareham, from the number of turns which the arm of the sea takes, is very intricate, and requires the assistance of different winds.

* Vol. i. p. 28.

The principal trade from Poole is to Newfoundland: till within these few years this was very considerable; it has fallen off principally from two causes, and at two distinct periods of time,—at first, on the close of the American war; and afterwards when, by the conquests of France, the markets for salt fish in the Mediterranean were in a great measure shut up.

It exports to Newfoundland, provisions, nets, cordage, oil-cloth, and all kinds of wearing apparel;—in short, commodities of every description for the supply of that island. Its imports consist principally of cod and salmon, which are afterwards shipped to foreign markets; oil, seal-skins, firs, and cranberries.

Wimborne, a place of very great antiquity, is more remarkable for what it was, than for what it is at present; it has a very considerable trade in the woollen manufacture, and the knitting of hosiery.

The parish of Cranborne is one of the largest in the county of Dorset; in circumference being about thirty miles, and its longest diameter about twelve. Cranborne Chase extends into Wiltshire, and is such by prescription, having been formerly a forest.

The situation of Shaftesbury, or Shaston, as it is frequently called, is very singular: it is built on a very high hill, and, in consequence, the ascent to it is very steep and difficult. The prospect from it is very extensive and beautiful, reaching over great part of Dorsetshire, Wiltshire, and Somersetshire. From Castle Green, an eminence to the west of the town, “a vast landscape appears: in front an eminence, called Pencliff-Hill, rises with a beautiful wooded summit, bounding the fertile vale of Blackmoor, through which a white road, sometimes losing itself among woodlands, and sometimes traversing verdant pastures, winds westward into the distance.

tance. On the left, a fine undulating ridge shelters the vale; while the hills of Mere, in Wiltshire, with Alfred's Tower at the extremity, the Tor of Glastonbury, and the lofty heights of Quantock, in Somersetshire, range themselves in the remaining part of the horizon *."

In consequence of the situation of this town, on the top of a high hill, it is entirely destitute of springs, except at the foot of the hills in the parish of St. James, where there are two wells, the property of individuals. At the foot of the Castle Hill, engines were erected some years ago, for furnishing a supply, by raising it nearly three hundred feet perpendicular. These works, however, are now neglected, and many of the poor gain a livelihood by bringing water from a distance, either on their heads, or on horses' backs. The wells from which it is thus brought, are situated about a quarter of a mile below the town, in the parish of Gillingham, and hamlet of Motcombe. In consequence of this supply being derived from a different parish, an ancient agreement, dated 1662, between the Lord of the Manor of Gillingham and the Mayor and Burgesses of Shaftesbury, is annually observed on the Monday before Holy Thursday: On that day, a prize besom, or *byzant*, as it is called, is dressed up;—its form somewhat resembles that of a May-garland, adorned with gold and peacock's feathers. This is carried to Enmore-green, in the hamlet of Motcombe, as an acknowledgment for the water; and along with it a raw calf's head, a pair of gloves, a gallon of beer, and two penny loaves of white wheaten bread, which are delivered to the steward of the lord of the manor.

Latterly two wells have been dug, one of which is one hundred and twenty-six feet deep, and afford plenty of good water; they are let for about 10*l.* a year each; and

* Maton's Western Counties, vol. ii. p. 3.

the water is retailed for about three halfpence or twopence a horse-load, and a farthing or halfpenny a pailful.

Shaftesbury, like most of the towns in Dorsetshire, wears much the appearance of decay; the trade carried on in it is very inconsiderable; it partakes, with several others of the towns in this county, of the shirt-button manufactory: the inferior sort are made at the low price of five-pence per gross, of twelve dozen, the labourer finding the thread.

Blandford Forum, Blenford Chipping, or Market Blandford, is situated near the centre of the N. E. part of the county, on a bend of the river Stour, which flows on the south and west sides of the town. The neighbouring country is very beautiful and rich.

Blandford is certainly one of the handsomest towns in Dorsetshire, and there appears more life and activity in it: it is principally supported by travellers, by its markets and fairs, and by the races which are annually held in July or August, on a down in the parish of Tarrant Monkton. Till the beginning of the eighteenth century, fine lace, or point, nearly equal to that of Flanders, and valued at 30*l.* a yard, was made here. It was, before that, famous for the manufacture of band-strings; at present, shirt-buttons are the only article manufactured.

Sherborne is a place of very great antiquity: about the middle of the eleventh century, it is described as a small street; but, in the time of Leland, it appears to have been greatly extended and improved, as he represents it as the most frequented town in the county; and that its woollen manufacture turned to the best account. After the Reformation, the clothing trade declined, and in its stead what may be termed the staple manufacture of Dorsetshire—shirt-buttons, haberdashery ware, and bone-lace, were made; most of these, however, gave way,

way, and the silk manufacture gained a footing; two of these manufactories employ at least six hundred people. It is the most populous town in the county, with the exception of Poole, and is nearly two miles in circumference. It is pleasantly situated, partly on the side of a hill, and partly in the fertile vale of Blackmoor.

The most striking objects in the neighbourhood of Sherborne, are the old Castle and the magnificent seat of the Earl of Derby. "The gardens belonging to it were partly laid out by Brown, and great taste is displayed in the management of them, as well as of the park, which is three hundred and forty acres in extent. The river Yeo, or Ivel, runs through the latter, and is crossed by a handsome stone bridge of three arches, built by Milne*."

Bridport, which is situated in a deep rich soil, in a vale surrounded by hills, about a mile from the sea, and lies between two rivulets, is very neatly and regularly built, and, though the situation is low, it is a very clean town.

The principal manufactures are those of scins and nets of all kinds, lines, twines, small cordage, and sail-cloth. These articles are exported in considerable quantities to Newfoundland, and other parts of America and the West Indies: the British fisheries likewise take off a good deal. It is computed that upwards of fifteen hundred tons of hemp and flax are worked up annually, and that nearly ten thousand people are employed in the town and neighbourhood. Sail-cloth is made principally in and about Beaminster.

"The quay is full a mile from the town. Very little business is carried on in it, the harbour having been long irretrievably choked up with sand. The cliffs here are composed of sand, though the surrounding country is covered with limestone, (full of shells), rocks of

* Maton's Western Counties, vol. ii. p. 7.

which,

which, with their broad mantles of samphire, and sea-cale, no longer guarded by the coast, as in Purbeck and other parts of the county. The height of the cliffs is, in most places, nearly two hundred feet, and they contain *belemnites* and other fossils, besides pyrites, gypsum, hepatic ore, &c.*³

Lyme, or Lyme Regis, is a very pleasant town, situated in a cavity between two rocky hills, on the little river Lyme, from which it takes its name. That part of it nearest the sea lies so very low, that, at spring tides, the cellars of the houses are frequently overflowed several feet deep: the other part of the town is very steep and difficult of access.

The most remarkable place about Lyme is the *Cobb*, or pier. It was begun in the reign of Edward III. It was totally destroyed in the time of Richard II. and, in the years 1742 and 1748, it was greatly injured by the violence of the storms. At the latter period it was repaired at a great expense. It was again damaged and repaired in 1762. As it is the only shelter for vessels between Start Point and Portland, it is of very great importance. It is six hundred and eighty feet long, from the land to the end: at the foundation the breadth is twelve feet, and the height, from the foundation to the walk, sixteen feet.

The following very curious particulars, respecting this structure, are given in North's Life of Lord Keeper Guildford.

"The Cobb at Lyme is situated in the *Cod* (as they term it) of a bay, where there was no river or land-lock provided by nature, and of all places upon the coast of England least to be suspected for a good port. It is

* Maton's Western Counties, vol. i. p. 74.

about two furlongs from the town, and so named from the Cobble stone of which it is composed; an immense mass of stone, of the shape of a demi-lune, with a bar in the middle of the concave. The stones are not wrought with any tool, nor bedded in any cement; but being all pebbles of the sea, are piled up, and hold by their bearings only, and the surge plays in and out through the interstices of the stone. As the best cemented square stone will scarce hold against the surge, it often decays; but there is warning enough to repair and prevent any great ruin of it; for sometimes a swamp appears upon the flat top where they walk, and when that is perceived, they take down all that part, and build it up from the bottom, and nothing less will prevent the downfall of much more, as the sea rages more or less against it. And it may happen, that some new foundation stones are to be laid: these are the largest that can be got upon the coast; and mounting them on casks chained together, with but one man mounted upon them, who, with the help of a pole, conducts it to the place where it is to lie, and then striking out an iron pin, away go the casks, and the stone falls into its place.

“ The vessels are laden and unladen by horses going upon the sand between the Cobb and the town: they have no drivers, but are charged with bales at the warehouse, and trot away to the ship's side and stand fair, sometimes above the belly in water, for the tackle to discharge them, and then they return to the warehouse for more; and so they perform the tide's work, and know, by the flood, when their labour is at an end*.”

* North's Life of Lord Keeper Guildford, p. 11.

SECT. III.—CLIMATE.

DORSETSHIRE is usually termed the garden of England, partly on account of the alleged fertility of its soil, and partly on account of the supposed superiority of its climate. When we come to treat of the soil of the county, we shall consider how far, and in what respect, it merits this distinguished and proverbial character in this point of view;—at present, the climate falls more particularly to be noticed.

There can be no doubt that, from the time of the Romans, this part of England has *been* celebrated for its pleasantness and fertility:—well watered, and adapted in a high degree both for profit and pleasure, it was particularly distinguished by the Romans and the West Saxons; the former had in this county many more stations, and summer camps, than in most other parts of England; and the Saxon Monarchs evinced their partiality and regard for it, by the number of palaces they had in it, the stately minsters which they built, and the directions generally expressed by them on their deathbeds, or in their wills, that they should be interred in those monuments of their piety.

Notwithstanding these ancient authorities, in illustration and support of the superior pleasantness of Dorsetshire, at present, taken altogether, it can scarcely be deemed so mild in its temperature, or so early in its seasons, as its latitude would lead us to expect. It may indeed be said, that the temperature has altered; and, in proof of this supposition, the circumstance—put beyond a doubt, by express and direct contemporary testimony, that formerly there were large and fruitful vineyards at Sherborne

Sherborne and Durweston, may be cited; but these appear to have been confined to very sheltered and favorite spots, and by no means to have been general throughout the county. Indeed the very circumstance of their being particularised in Domesday Book, as belonging exclusively to these two places, puts this beyond a doubt. There is, however, one other circumstance, which seems to give some weight to the supposition that Dorsetshire may not be so favored, in point of mildness of climate and earliness of seasons, now as it was formerly; and that circumstance is the very one which generally produces, in other situations, a change of temperature on the favorable side. In most counties, the clearing away of the wood, renders the climate milder and drier;—but as the greatest part of Dorsetshire consists of an exposed, dry, chalky soil, it may well be questioned, whether the denuding it of wood, by leaving it more exposed, would not render the temperature keener and colder—while, from the nature of the soil, there would be no room or occasion for the usual benefit attending this operation, viz. rendering the climate drier.

However these things may be, the air of Dorsetshire is rather dry and salubrious than mild and bland; and the seasons, except in spots very sheltered, or possessed of a very warm soil, are not nearly so forward as they are in other parts of England not so far to the south.

The air on the hills and downs is keen, as they are exposed, without enclosures, to the winds from the sea. In the neighbourhood of the coast, it rains more in the winter, and less in summer, than is the case in more inland districts; and, as a necessary consequence or concomitant of this, there is comparatively little snow or frost during the winter months. Near the sea, also, it is remarked, that the sea fogs hang on the hills sometimes

times for a week together, and are supposed, not without reason, to be highly prejudicial to the corn. As the county lies completely exposed to the sea, and as the west and south-west winds in this county, as in every part of England, are much more common, and generally more violent, than most other winds, and besides, here come directly from the sea, they are very injurious to the hedges and trees; so that very few are to be seen in the vicinity of the coast; and even at a distance from it, the prevalence and force of these winds are distinctly marked by the bend to the east and north-east which they have given to the trees, and by their stunted and unhealthy appearance on the side exposed to the wind.

In settled and mild weather, during the summer, the wind frequently goes round with the sun; blowing with a refreshing coolness in the middle of the day, from the sea, and returning off the land in the evening: during this change of the wind, however, near the surface of the earth, the higher clouds are frequently observed to be moving from the north.

From what has been said of the temperature of this county, it may be supposed that the harvest is not remarkably early; of course in some spots where there is no great elevation, little exposure to the sea air, and a dry warm soil, it is as early as in most parts of England; but in other parts of the county it is certainly late. In the beginning of August 1811, the corn in general, and the barley in particular, was not more forward in the Isle of Purbeck, than it had been in the same month of 1810, in the county of East Lothian in Scotland. It ought to be remarked, however, that the harvest of 1811, was backward every where, when compared with the harvest of 1810. In Purbeck, the exposure to the sea is considerable; the soil, though for the
most

It is obvious, in estimating and describing the climate of any district, from the time of harvest, that we shall be proceeding on no fair grounds; as the time of the ripening and cutting of the corn, must depend greatly on the time when it is sown: it must depend also on the state of the ground, in respect to its being well or ill cleaned and drained; and even on the attention which is paid to the crop while growing, in preserving the soil from surface water. Those productions of the soil, therefore, which are artificially cultivated, cannot afford such a certain and just criterion, whereby to judge of the comparative temperature of the climate of any particular district, as those productions which grow independent of the attention or aid of man. We should, therefore, if we wish to be accurate in our estimate of the comparative temperature of different districts, mark well, and for repeated seasons, the times of flowering of different plants. In another point of view, this will afford a more certain criterion: Corn is grown on all soils, under very different exposures, and at very different elevations, as well as with different degrees of skill and attention; whereas there are many plants which *generally* are found on

DORSET.] D nearly

nearly the same soil, at about the same elevation, and under nearly the same exposure. These should be particularly noted; and from the compared periods of their flowering, we should be able to give a comparative account of the temperature of different districts.

To those who reflect of how much interest and importance the climate of the district where he is settled, must be to the farmer, it seems surprising that so very few of them are possessed of any methods of ascertaining and registering the variations in the temperature, the state of the atmosphere with respect to moisture, the prevalence of different winds, or the quantity of rain that falls. Were we in possession of the greatest possible number of facts accurately ascertained and described, it still would probably not be in our power to reduce meteorology to a science; but though the compass and precision of a science could not be given to it, yet great service would undoubtedly be derived from a regular and long continued register of the weather.

In order, however, for a farmer to keep this register in such a manner as would be of the utmost utility and advantage to him, it would be necessary for him to describe minutely the different soil of which his farm was composed, so that the effect of the variations in temperature, moisture, &c. on each kind of soil, might be noticed. If these things were done generally, we might safely look for some information on a point of great importance, viz. whether the mildew and other diseases of wheat, are primarily and entirely caused by a particular state of the atmosphere; if they are, by what state; or whether they are produced partly by the weather, and partly by the attacks of an insect. This latter consideration naturally suggests the idea, that agriculture would be advanced materially, especially in that important
branch

branch which relates to the diseases of corn, if farmers would make themselves acquainted with natural history.

As therefore so much depends upon the weather, it were to be wished that more attention were paid to registering it, and recording its effects on different soils and different crops.

SECT. IV.—SOIL.

THIS county, in respect to the soil, is naturally divided into three principal districts, viz. chalky loams, gravelly sand, and clay, or various soils as a clay basis. The boundaries of these different soils are traced on the Map which accompanies this Survey, with nearly as much precision as the subject is capable of, and the relative quantities of each, it is said, are nearly as follows :

Chalk	160,759
Sand	85,157
Loam	37,746
Gravel	59,894
Miscellaneous	13,427
Stone brash	29,700
Clay	117,931
Total (except rivers, towns, &c.)	<u>504,014</u>

This statement can only be an approximation to the truth, but it may serve to furnish some idea of the relative quantities of each kind of soil; they are much intermixed together in many places, so as to render it a

task of some difficulty to ascertain by what name they should be described.

The chalky district of this country is the western termination of the stratum of chalk which passes through Wiltshire, and towards the eastern counties. Its appearance is in general smooth, verdant, and agreeable to the eye, but its remarkable deficiency of hedges, timber, and young plantations, destroys every pretension to picturesque beauty.

The chalky hills to the west of Dorchester, and along the borders of the Vale of Blackmoor, are considerably elevated, and are divided by narrow vales, and variegated by abrupt concavities.

Dr. Maton gives the following account of the course of the chalk in this county, and the appearance of its boundaries.

“ Wishing to ascertain as accurately as possible, the course of the chalk in this county, and the appearance of its boundaries, we now made a journey southward, and trod the rich soil of the Vale of Blackmoor, until we came to Revel-hill. The face of the country here altered, and the most pleasing intermixture of wood and pasture was exchanged for open downs and unvaried barrenness. Before we searched into the nature of the subsoil, we were sufficiently instigated that it had passed into chalk, by the altered aspect of vegetation. By attending to this circumstance, the mineralogist may often obtain pretty certain indications of the transitions of *strata*, and thus agriculture and botany lend their assistance to him, as well as prove their intimate connection with each other. Agriculture, in its turn, receives help from mineralogy; for soils being so much dependent on the composition of their *substrata*, the farmer can ascertain neither the nature, nor the probability of finding a depth of the former, but by learning the
the

inches deep, the land can never be ploughed with any prospect of advantage, as the loose chalk ought not to be disturbed; it being deemed rather pernicious than otherwise, as a mixture with the cultivated soil. The poorest parts of the downs are perhaps those steep acclivities which overlook the Vale of Blackmoor, and the most fertile soils are those within a few miles of the sandy district, or between Dorchester and Wimborne Minster. In some places the flints are very numerous; between Evershot and Cerne there are frequently deep beds of gravel, flints, and clay; and wherever the strata incumbent on the chalk is a deep sand or gravel, the surface is generally covered with furze or heath, the latter of which seldom appears where the chalk is at no great depth. The vales consist, in general, of a considerable depth of gravel, loam, or clay, which may be supposed to have been washed from the contiguous hills, in the general inundation. Some people seem to entertain the idea, that the natural soil, or vegetable mould, is originally of the same nature as the substratum below the usual depth of the ploughing; but the appearance of the chalky districts would rather induce the belief, that the cultivated soil is the last sediment of the water that must have formerly covered the whole earth.

That the loamy covering of the chalky stratum does not increase, may be inferred from the appearance of the many Celtic and Roman barrows and entrenchments, which seem, in many instances, as bare of vegetation and natural soil, as if they had been thrown up but a few years, instead of a thousand or more.

On the other hand, it does not appear that the portion of clay which is found in most of the chalky soils, is diminished by the filtration of rains through it, into the chalky substratum; as this process has been going on
for

for some thousands of years, without any fresh supply of clay, which nevertheless remains far more plentiful in these soils than is generally the case in those of the sandy kind, in this or other counties.

The elevated range of hills which runs through the Isle of Purbeck, from Studland to Chilcombe, consists of a harder kind of chalk, approaching almost to the nature of stone, and the surface soil in many places contains a larger proportion of clay than the downs in the rest of the chalky district.

The sandy district of this county is the termination of that which extends to Bagshot-heath, and towards London; it is intersected by the rivers Frome, Piddle, Stour, Sherford, and several smaller streams, near the banks of which, are some fertile meadows, and arable fields, and many more of a very inferior quality.

The watered meadows in this district are, in many instances, incapable of sufficient drainage; and where the soil partakes too much of the nature of peat, good grass cannot be expected.

The heaths, which together with the fir plantations, probably occupy 50,000 acres of this district, are in general barren and unimprovable; the surface soil is in many places a gravelly sand, occasionally interspersed with flints; some of the sand is of a black colour, and small portions of a thin peaty soil appear in several places round the ridge of hills, which is included between the Frome and the Piddle, extending from Piddletown many miles toward Wareham.

The heaths near Piddletown, and six or seven miles farther to the south-east, are remarkable for the many round deep pits which they contain; they diminish almost to a point at the bottom, and are not unlike inverted cones. There is one which appears to be 20
D 4 yards

yards wide, and 10 yards deep. They are said to become deeper, and an idea is entertained, that they are undermined by concealed streams of water.

The boundaries of the heaths are rather hilly towards Beer Regis, Morden, Lychett, and Corfe Mullen, but the rest of this district, except Poole and Canford heaths, is rather low ground, as may be supposed from the number of streams which run through it. The soil between Morden and the two Lytchetts is a kind of brick earth, and might be improved by enclosing. Brick earth is also found between Uddens and Horton, and in several other places, but marl is no where to be met with in this part of the county.

The substratum of the sandy part of the Isle of Purbeck, and probably a great part of the rest of this district, consists of potter's clay, of various degrees of purity. This clay is said to be of no use whatever as a manure; but as it appears only to want the calcareous principle to make it similar to marl, it seems very probable, that a compost made of this clay with lime, or powdered chalk, and other earths, would prove a useful addition to the very barren soils under which it is found. The sandy stratum passes under the Isle of Purbeck, and the other lands along the coast, and again makes its appearance in Swannage and Weymouth bays.

The district of clay soils, interspersed with various loams, gravel, and stone brash, occupies a very large proportion of the county.

The soil of Purbeck, to the south of the ridge of hills at Corfe Castle, is thus described by the Rev. Mr. Dampiere of Langton Matravers: "Between this and another ridge of hills in the same direction, which extend from Swannage to Eggleston, lies the Vale of Purbeck, which consists of a strong loam, approaching to clay; the
arable

arable, if well worked and cleaned, is very productive, the pastures are fertile and luxuriant, and the meadows good. The substratum of the southern hills is composed of stone, and strong loam, and the soil produces excellent wheat. On the southern side of the ridge of hills which contain stone, on a gentle declivity to the sea, lies Encombe, Kimmeridge, &c. there the snow never remains, and vegetables flourish almost the whole of the winter. From these parts are driven to Weyhill, the most forward ewes in Dorsetshire, for the production of early lambs for the London market."

It is stated, that there are 733 acres of stone brash soil in the parish of Worth Matravers, and there are some sandy loams, &c. under the hill of stony chalk opposite to Studland.

"Encombe is situated in a very deep vale, that opens to the British Channel on the south; it is one of the best farms in the island, consisting of arable, and pasture for sheep. The hilly part, as well as the vale, yields a greater plenty of grass, and more beautiful verdure, than is usually seen in the island, and, from its fertility, has been distinguished by the name of the *Golden Bowl*."—*Hutchins's Hist.*

At Swalland, contiguous to Encombe, is the *Silver Bowl*.

The soil on the coast between Purbeck and Weymouth is mostly a clay loam, on a calcareous basis, and of no very fertile quality.

The coast lands from Weymouth to Burton are, in general, cold tough clays of a very inferior kind, but intermixed with stone brash, and a few spots of a very fertile description. Instances of this sort have been mentioned at Wyke, Abbotsbury, and Bexington.

At Abbotsbury, near the back water, called the Fleet,
are

are some meadows, where the grass consists almost entirely of white clover, slightly interspersed with flags. At this place is the swannery belonging to the Earl of Ilchester.

At West Bexington are some very deep rich soils at the bottom of the hills and near the sea, but the hilly part is very poor; one field is so remarkably unfertile, as to have obtained the appellation of "Labour-in-Vain."

The hills all along the coast contain strata of flat lime, and the northern declivities are considered to be much more fruitful than those of the south. In 1810, there were good turnips on the side of the hill towards East Compton, when there were scarcely any on the southern side of the hill in Kingston Russel.

At Burton Bradstock there is a small common, the soil of which is a whitish clay, intermixed with some fragments of flat limestone, and so remarkably poor, as scarcely to produce any kind of herbage.

The Isle of Portland consists (according to Mr. Parkinson,) of 933 acres of clay, and 1867 acres of stone brash; it is in general a poor soil, but some of it is fertile.

There is a well in the Isle, 100 feet deep; and after passing the rubbish and the strata of freestone, the substratum was found to be a bed of flints, of the depth of 20 feet.

The western district is distinguished by the growth of flax and hemp in the vicinity of Bridport and Beaminster, and the intervening parishes to the west of Eggerdon Hill.

The soil of this district is a very rich loam, some of which is of a brown colour, and is called fox-mould.

Westward of Symondsburry is Marshwood Vale, which

which is chiefly in pasturage, and some of it is a cold clay.

The hills along the coast towards Lyme, Pillsdon, and in general all the western part of the county, consist principally of clay, intersected by some strata of flat limestone, and sand of a fine grain, not unlike that which is termed fox-earth at Loders, &c. The high cliffs at Burton consist of the same kind of sand, covered by a layer of flat limestone and clay, and they are probably fragments of the same strata that appear in most of the hills in this part of the county.

The soil of the Vale of Blackmoor is very rich in general; the ground on the banks of the Stour is a very deep loam, forming some of the most fertile meadows in the kingdom. The rest of the Vale is generally good, consisting of a large proportion of clay. There is also loam upon limestone, rich sand, and a very hard gravel.

The acres of each could not be determined without a survey expressly with that view, but the clay is most prevalent.

At Melbury Abbas a sandy stratum appears, which dips to the south or south-east, and seems to pass under the chalk hills.

In the neighbourhood of Shaftesbury, and to the north-west, the soils are various, and of much fertility.

The high hill, on which is the town of Shaftesbury, contains strata of limestone, and such is the case on the elevated ground between Stalbridge and Sherborne, where the soil is much of the loamy and stone brash kind, as is also the case between Sherborne and Yeovil. From thence southward to the chalky hills, the soil is mostly clay, and of various quality; some of it is very fertile, and other parts, such as the hills at Thornford, Halstock Liberty, and some of the vale land, is of a cold unfruitful kind, producing sedge grasses, &c.

SECT. V.—MINERALS.

THIS county has no metallic mines, nor coals of any value. The following account of various mineral substances, found in different parts of it, was drawn up by Mr. Hall, of Hilton, near Blandford :

“ There are many things found in the parish of Hilton, in which I live, that are well worthy of the attention of a Naturalist.

The minerals and fossils which I have noticed in the county of Dorset, are such as beneath, although I can pretend to but little skill in mineralogy.

Bituminous schistus, or slaty coal.

Martial pyrites.

Marl, potters' clay.

Petrified fish-shells.

Sand, resembling sea-sand, with broken shells.

Iron, mixed with gravel and sand, supposed to be volcanic.

Slaty Coal—Is found in great abundance in the hamlet of Ansty, in the parish of Hilton ; it burns with a bright and lively flame, but yields, in its combustion, an exceeding disagreeable smell ; so that it is not made use of for fuel. It is not unlikely, that good coal might be found beneath, as slaty coal, in some coal counties, lies over the good coal.

Martial Pyrites—Is found between the stratas of slaty coal, and might be had in considerable quantities, if the coal was dug for.

Marl—Is found in the same vale, of the blue soapy kind, and of an excellent quality ; but none of it is ever made use of.

Potters' Clay—Some years ago, was found on a hill in the

the parish of Hilton; considerable quantities of it were carried to Sherborne, for the purpose of being made into tobacco pipes; but the pit is now tumbled in; so that no specimens of it can be had without boring.

Petrified Fish-Shells—Are found in the parish of Hilton and its neighbourhood, imbedded in sand-stone, in immense numbers. They are both of the bivalve and univalve kinds; but you can seldom find both of the bivalve shells together. Petrified tortoises, in considerable numbers, have also been dug up in Ansty vale: it is disputed by some, whether they were ever real tortoise or not; but they are of various sizes, and very much resemble the shape of a tortoise. At Lower Melbury, near the seat of the Earl of Ilchester, the tortoise stones are so highly petrified, that they are sawn into slabs, and form beautiful chimney-pieces.

Cornua Ammonis—Of various sizes, are also found at Melbury, and in Ansty Vale.

Sand—Is also found in the parish of Hilton in vast quantities, intermixed with many broken shells, a certain indication that it was once covered by the sea.

Iron—Mixed with gravel, supposed to be from a volcanic eruption, is found in large masses in most parts of the heath land in Dorset; and iron, mixed with sand, is found in the same heaths, as also on the hills near Cerne.

Many springs in this county are found by analysis to contain iron, but no mine has yet been discovered, or sought for.

Some gentlemen have had it in contemplation to seek for coals, with Lord Digby's permission, at Sherborne, as a person skilled in mineralogy had observed the crop of good coal appear to the day, near that town. But his Lordship has not made a grant of the land, so that the work is not yet begun.

A Vein

A Vein of Copper—Has been lately discovered in a chert of a cliff in this county: it has been subjected to the test, and is found to contain some silver, with good copper; but the spot where it is found must remain a secret till the work is begun.*

But the most singular fossil production that is found in Dorsetshire, is Kimmeridge coal. Kimmeridge is a very small and poor village in the Isle of Purbeck, about one mile from the sea: it is situated near an abrupt termination of a ridge of hills;—these hills, for the most part, are composed of limestone, very compact and white, and, towards the base of the hills, very narrow veins of chert, or petrosilex, appear. Dr. Maton, who examined them very minutely, observes, that “there appears to be a transition of one of these substances into the other; for we discovered that such parts of the veins of chert as were contiguous to the same stone, effervesced slightly with acids, forming an intermediate species, as it were;—both had a strong bituminous smell, when rubbed with steel*.”

At one period, there appear to have been alum mines in this neighbourhood, which are said to have been discovered by Lord Mountjoy; but neither he nor Sir William Clavel, who expended above 4000*l.* to build a pier of stone one hundred feet in length, sixty broad, and fifty high, succeeded in working the mines to any pecuniary advantage.

The fossil called Kimmeridge coal, is found on the cliffs which border on Kimmeridge bay, about sixteen feet below the summit: it consists of an argillaceous slate, impregnated with bitumen to a great degree: the colour blackish brown. It is found in large lumps, lying in a stratum about three feet deep, but disappears at a small distance

* Maton, vol. i. p. 32.

from the shore. When burning it gives out a sulphureous smell, and a strong bright light. If it is exposed to the atmosphere, it falls to pieces; but when kept under water, and before it is dry out of the cliffs, it is very hard. It is chiefly used in ovens, and by the poor people.

For a further account of the Mineralogy of Dorsetshire, see the Appendix.

Quarries.—The Isle, or rather the peninsula of Portland, is about four miles and a half in length, and two in breadth. It has been long famous for its free-stone, and is indeed one continued bed of it. It is said that Portland stone was first brought into use and reputation in the time of James I. who, by the advice of his architects, employed it in the erection of the Banqueting-house at Whitehall. After the fire of London, it was much used by Sir Christopher Wren, in constructing the different public edifices. Dr. Maçon remarks, that the name of *free-stone* is very expressive of the useful property of the Portland stone, in enduring to be cut in any direction, whether horizontal, perpendicular, or parallel, to the site of the strata, while it bears the injuries of the weather equally well in every position.

Before entering on a minute and particular account and description of these famous quarries, a few observations may be offered on the mineralogy and natural history of the Isle, particularly in that most wonderful production of nature, the *Chesil Bank*. Our principal guides and authorities here, will be Dr. Maton, in his *Observations on the Western Counties*, and Mr. Smeaton, in his *History of the Eddystone Light-House*, in which there is a full account of the Portland quarries.

Near the Castle is a stratum of black schistus, or coal-stone. Being found on the outside of the cliffs, it is dug horizontally.

horizontally. There are two kinds, the black and the reddish: it rises in *laminae*: it is frequently employed as manure, after being burnt. In the quarries to the south-west, a species of stone, called sugar-candy stone, is found: there are two kinds, one pale coloured, another of the colour of amber, or sugar-candy, whence it takes its name. The quarries in the north-west are remarkable for containing petrified shells: the most common are, the cockle, oyster, muscle, and turbinated kinds. There are also found many of the *heart* kind, and some of the *cornua ammonis*, spirals or screws. It is extremely difficult to procure these last out of the free-stone, perfect. When they are so obtained, they are esteemed great curiosities, and the workmen sell them at a high price. At Milton, there is preserved a large *cornua ammonis*, which was dug out of Portland quarries; and when the stone was digging for Blackfriars-bridge, a petrified trunk of a tree was found.

On the western side of the Isle, the rocks are very high; they are composed of a whitish free-stone, or calcareous grit, containing molds of various shells; if they are rubbed with steel, they give out a bituminous smell, like that emitted by the *lapis suillus*. In some parts on this side of the island, are regular veins of chert, similar to those which are found at Kimmeridge.

The botany of the Isle of Portland affords *Euphorbia Portlandica* in great abundance, and, on the eminences, *Lavatera Arborea* (Tree Mallow) is found. Orchell (*Lichen Roccella*) has also been observed. The Chesil Bank produces several marine plants, particularly *Salsola Fruticosa*, *Inula Crithmifolia*, and *Pisum Maritimum*.

The Chesil Bank is thus described in a correct and animated manner by Dr. Maton:

“The Chesil Bank is one of the most extraordinary ridges,

ridges, or shelves of pebbles in Europe, and perhaps the longest, except that of Memel, in Polish Prussia: its length is supposed to be about seventeen miles; its breadth is in some places near a quarter of a mile. The pebbles are so loose, that horses' legs sink almost knee deep at every step: but a traveller of any curiosity should by no means neglect to examine the productions of this pebbly desert. With regard to the pebbles themselves, they in general consist of white calcareous (known by the name of Portland) pebbles; but there are many of quartz, jasper, chert, and a variety of other substances. It is worthy of remark, that they gradually diminish in size the nearer they approach to the main land, being very little larger than horse-beans towards Abbotsbury; though, at the other end of the bank, they are from one inch to three inches in diameter. We found the ridge to the right by far the firmest and easiest for our horses, especially as the pebbles were somewhat bound together by the marine plants, growing in patches along the water side*."

Mr. Smeaton accounts for the formation of this most extraordinary bank in a very ingenious manner:

"A work of nature, so regular in its form, must necessarily have a regular cause; what this cause may be, seems not so obvious; but it certainly is well worthy the attention of the skilful naturalist. It would seem not to have had its origin at a very remote period; for the irregularities that the sea had washed, in the ancient coast, were still very distinct upon the salt-water creek (which every where runs behind it, till its final junction with the shore), whereas, in any great length of time, they must have been so far acted upon by frost, rain, and wind, as

* *Mason's Western Counties*, vol. i. p. 69.

to have been obliterated ; since the present beach, like an immense bulwark, defends them from the immediate action of the sea's making any farther encroachments. It would seem also, that this beach was formed somewhat suddenly, so as to be, as it were, at once a defence to the ancient coast ; for, had a quantity of pebbles been washed up from the sea, and brought to the shore gradually, there does not appear to be any reason why the action that brought them thus far, should drop them short of the shore, and not heap them upon it, in which case no salt-water creek would have been formed ; for then the irregular bays in the shore would have been first filled up, and the whole mass brought forward in the same kind of fair curve as we now find for it. But from whence such a mass of pebbles should come, as very soon to form so great a barricade as to shut out the sea, is a problem not seeming to admit of an easy solution.

"It further appears that this beach, lying in such a direction as to receive the full action of the south-west seas, the component pebbles are of so loose a nature, that every tide makes an apparent change in the manner of its slope to seaward ; which being formed into a sort of steps, or benches, answerable to the last high-water mark, these range regularly for a considerable length, and seldom remain the same for several tides together. In time of storms, great quantities of the pebbles are driven over the summit ; and as there is no power acting in a contrary direction to bring them back again, one might at first be led to suppose the whole beach to be in a slow state of progression towards the shore, and that, in time, it would fill up the salt creek. But, in contradiction to this idea, four, five, or six feet beneath the surface of the pebbles, there is every where a strong mound of blue clay, having the same several shape as the beach. This
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one can hardly imagine to be in a moving state; and though there may be an endless succession of pebbles constantly washing up from the sea, to supply the place of those washed over the summit, yet still, why there is not a gradual encroachment upon the salt creek, does not readily appear. Was there any considerable discharge of land water by this creek, that would doubtless keep it clear, and the reflux of the salt water may somewhat tend to the same end: but yet its reflux seems far too languid to be sufficient for the purpose."

The following accurate description of the quarries is given by Mr. Smeaton:

"In the quarries, the first stratum is one foot of blackish or reddish earth; then six feet of *cap*, or stone, but not fit for exportation. Below this is the bed of good stone, ten or twelve feet deep; and below it, flint or clay. In some parts an irregular vein of flint runs through it; under the good vein there is no more good stone. The stratum of stone that is wrought for sale, lies nearly parallel with the upper surface of the Island, and with not much cover of earth or rubbish upon it. There are several beds of stone lying in contiguity one above another, varying in thickness in general from two to four feet and upwards. Those which are usually called the merchantable beds (on account of the blocks for sale being produced therefrom) are universally covered with a stratum called the *cap*, which is formed entirely of a great variety of kinds, but in general so distinct and separate in their forms, that, to the curious Naturalist, their species seem very easy to be made out; but as they, in a considerable degree, retain their respective figures, though in some places more, in some less, spaces or cavities are left between them, which consequently very much diminish the coherence of the mass; but yet the

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cementing

cementing principle is so strong, that the whole together is considerably harder than the merchantable beds; and indeed so hard, that, to get rid of it as easily as possible, it is generally blasted off with gunpowder. Were it not for these cavities, the cap-stone would not readily be worked with tools, or at least it would not be worth working at a place where there is so great plenty of stone of a better quality; but as it is necessary to remove it, in the course of working the better kind of stone, though by far the greatest proportion is blasted in fragments, yet, for the buildings on the Island, the cap-stone is in general use, and also for the piers and quay walls of Weymouth harbour; and for several rough purposes under water, the cap would make quite as good and durable work as the merchantable blocks.

“ When the merchantable beds are cleared of the cap, the quarrymen proceed to cross-cut the large flats, which are laid bare with wedges, in the way used for the moorstone, only the wedges are not so numerous: nor does Portland stone split so easily as the granite; and frequently in the splitting, as well as other working of this stone, oyster and other fossil shells are discovered in the solid substance of the merchantable stone. The beds being thus cut into distinct humps, the quarryman, with a tool called a *revel*, which is at the one end a hammer, and at the other an axe, whose edge is so short and narrow, that it approaches to the shape of a pick, by a repetition of sturdy blows, soon reduces a piece of stone, by his eye, to the largest square figure which it will admit; and blocks are thus formed, from half a ton to six or eight tons weight, or upwards, if particularly bespoke.

“ When I viewed the simple construction of their carriages, I could not but wonder, upon being told that such a very plain piece of machinery was all they had for getting

getting the largest blocks down to the water-side ; but when I saw the application, my wonder ceased. I have already observed, that the plane upon which the quarries are situated, is considerably elevated above the sea. It is further to be observed, that though the greatest part of the circumference of the Isle to seaward, is bounded by cliffs almost perpendicular, yet, on the north side, towards the main land of Dorsetshire, the descent is more moderate, though it is rather quick every where. It did not indeed at once occur to me, that though it would require very great power to draw very large stones against gravity, or up hill, and even a considerable one to draw them upon the plain ground ; yet, in moving down hill, their gravity would assist them. The carriages are a sort of carts, consisting of nothing more than a pair of very low strong wheels, (as well as I remember) about a yard in diameter, and a very thick axle-tree, upon which is fixed a stout planking or platform, that terminates in a draught-tree, for steering, and yoking the cattle to.

" The wheels and platform being low, the blocks are the more easily loaded therein, and a necessary power is employed, according to the size of the block, to draw it to the commencement of the descent. To this place a quantity of blocks of different sizes have been at leisure times previously drawn ; some of these blocks, of a suitable size, such as experience has pointed out, is, by a strong chain, attached to the carriage on which the other block is placed, which is then drawn forward by the block in tow, till they are got sufficiently on the slope of the road to find an inclination in the loaded carriage to move the attached block ; after which the horses and beasts of draught are taken off, except such as are absolutely necessary for the guidance ; and in this way, the descent being continual to the pier, two large stones are

got down with a degree of ease and expedition that would be almost impracticable with one alone, without more complicated machinery."

"The whole Island of Portland seems to be one entire mass of beautiful freestone, which is much used in the metropolis, and elsewhere, for the most superb buildings, and is universally admired, its close texture and durability surpassing any other.

"The raising of it is a laborious business, sometimes employing upwards of one hundred men to break down a large jam of it. Afterwards it is divided into blocks, and then conveyed to the shore by horses," on low cars, with solid wheels, which carry astonishing weights, sometimes six tons; and when going down hill, they tie behind them a sledge, loaded with a large stone, which prevents the car from pressing forwards on the horse. "One shilling per ton is paid to the owner of the land, for breaking ground; six shillings per ton is paid to the workmen for raising and quartering it; and the price of carriage to the shore varies as to distance, from sixpence to half a crown per ton. Fourteen shillings per ton in time of war, and ten shillings in time of peace, is paid for freightage to London. Some of these stones weigh four, and some five tons each; but the general estimate is, that a hundred blocks will weigh eighty tons. There are many proprietors of quarries in the Island, but those called the King's Quarries, are by far the most considerable. From 30 to 40,000 tons of this stone are annually shipped off from the Island."—*Claridge*.

In addition to the above particulars, the following has been obtained from a gentleman engaged in the stone trade:

"Inhabitants in the Isle of Portland, about 1700

"Quarrymen and boys employed, about 800

"Ships

" Ships in the trade, about 50—Burthen from 30 to 140 tons.

" Stone exported annually, from 20 to 30,000 tons.

" Horses employed in the trade, about 180. Six horses are put in each team, and the common load of a car is about 3 tons.

" The price of stone is from 16s. to 24s. per ton of 16 cubic feet, and a duty on the stone when delivered, which amounts to about 6s. per ton."

At the time Mr. Hutchins's History was written, he says, the annual export of stone from Portland was 9000 tons; and Mr. Smeaton states the same.

The quarrymen demand 11s. a ton for digging and squaring; the owner of the land has 1s. 6d., and it costs 6s. a ton more before it is exported; and about 250 people are employed in the business.

Many of the birds which are called *wheatears*, are caught on this Island, and sold at Weymouth.

A woman in this isle obtained a reward from the Society of Arts, for the discovery that starch may be profitably extracted from the common herb *arum*, or cuckow pint. These plants are called *Starchmoors* in Portland, and *Lords* and *Ladies* in Bedfordshire. Mr. Lowman says, the starch obtained from the *arum* looks very white, and may be afforded at 10d. a pound.

Purbeck Stone.—"The quarries, shores, and cliffs, on the south side of Purbeck, afford an inexhaustible fund of natural curiosities.

"The quarries are chiefly near Kingston Worth, Langton, and Swannage. In many parts of the Island is a stone that rises thin, and is used for tiling; also a hard paving stone, which sweats against change of weather. This is the *ammites* or *hammites*, sandstone or freestone,

freestone, of various colours and qualities. At Swanage is a white stone, full of shells, which takes a polish, and looks like alabaster; there is another of the same sort, but not so hard. At, and near Dunshay, was formerly dug marble of various colours, blue, red, spotted, and grey, but chiefly the latter; all of a coarse sort. The grey is a congeries of shells; vast quantities of it are found in all our ancient churches, parochial, conventual, and cathedral; and it was in great repute for gravestones and monuments. The *cornua ammonis* are frequently found in stone in the quarries, some two or three feet in diameter. The copperas stone is found on the shores at Smedmore and Kimmeridge, and in the cliffs a bituminous sort of coal. In former times, Sir Wm. Clavel made alum, salt, and glass, at Kimmeridge; but now all these works are neglected and ruined. All over the heath, in this Island, and about Wareham and Morden, is found a stone of an iron colour, called freestone; it rises in blocks, sometimes very large; the surface is hard and smooth, but the inside is of a gritty sandy substance; there is a kind of quarry of it at East Holme.

“Between the surface of the soil, on the stone quarries (which is from three to five feet deep), and the uppermost stratum of stone, lie horizontally one, two, or three layers of what is called here the *saltpetre stone*. It is not peculiar to these quarries, but is found in the cliffs near Winfrith, and opposite Spraggs Upton, between Winfrith and Osmington, but in a different direction in the latter place; where from appearance on the side of the road, I apprehend there are some beds of stone, similar to those at Swannage.

“The uppermost bed of stone is called the *white rag*, about six inches thick, fit only for foundations. Under it

it is a bed of earth, mostly blue, six or eight feet thick.

" Then the *toad's-eye*, about nine inches thick ; so called, probably from the resemblance which the black shining convexity of a small fossil-shell in it is supposed to bear to the eye of that animal. Contiguous to it is a blue stone, called a *rag*, about ten inches thick ; of no service. Under it, brown earth eight inches.

" *Leper*, so called perhaps from its resemblance to the skin of a leprous person ; and *white-bed*, each ten inches thick ; good.

" *The soft and hard bed*, about a foot thick ; good. Then the *mock hard bed*, one foot ; of no use, being full of clefts.

" A foot of brown earth mixed with yellow, and blue.

" A stratum of twelve inches, called the *backing bed*, fit only for the inside of a wall. Earth two feet, the same as above.

" The *rial*, used for *kirch*, or the outside stone in the paved footways ; good and durable. Blue light earth two feet,

" *Top-gallant rag*, six inches ; so very hard, as to merit the appellation of the *devil's bed*. Three or four feet of blue earth.

" *White rag*.

" *Freestone rag*, about six inches thick, and the *under rag*, one foot ; each good. Blue earth one foot.

" *Lead bed*, nine inches, a very ponderous stone, but not of much service. Earth one foot, of a smoke colour.

" *Shingle*, one foot, not very good. Yellow earth, six inches.

" *Grub*, six inches, very good.

" *Freestone*

" *Freestone raab*, eighteen inches. *Grey bed*, eight inches, good.

" *Thornback*, seven inches; very good.

" *Freestone*, two feet; good. Blue earth, eighteen inches.

" *Lias*, one foot; not the best.

" *Lias rag*, two feet, but of no great use. Hard rubbly earth, *i. e.* earth in hard lumps, about five feet, three inches blue, the remainder a light brown.

" *Down vein*, three feet, good.

" *Cinder*, which no tools can work. Gunpowder alone can affect it: very ponderous, but of no use; ten inches thick. Yellow earth, six inches, stone eight inches, called the *buttons*; of no use. One foot of rubbly earth, yellowish.

" *Feather*, one foot; good. Earth six inches of a soap colour.

" *Cop*, one foot; good. Earth eighteen inches, yellow.

" *Five beds*, one foot: so called because it can be cleft into five pieces; good.

" *White bed*, fifteen inches; good.

" *Tombstone bed*, about one foot; not good, as it often has flint in it.

" *The raw pudding*, a soft stone. Under it, the *knife and sheers*, of the same or worse quality: the earth to the water-side of a hard rubbly kind, of the colour of soap; in which are found, in certain places, large rocks of plaster of Paris.

" The above contains an account of all the stone now dug at Swannage and its neighbourhood. The chief ingredient in the composition of most of them is shells, which are not found, or very rarely, in the beds of earth between the stone. The hills, out of which the stones
are

are dug, run near east and west. At the Cliff they may be 4 or 500 feet high, and higher inland.

"The pitch or dip, is to the north, and very great; for the uppermost bed of stone appears near the surface, and in about 300 yards sinks below the sea.

"To the south of Swannage, on the cliffs of the sea, is dug a stone called *Purbeck Portland*, resembling Portland stone, but harder.

"The quantity of stone shipped from Purbeck, between 1764 and 1771, was about 14,040 tons, per annum."—*Hutchins*.

Mr. Chinchin, of Swannage, estimates the exports of Purbeck stone, in the five years succeeding 1801, at 38,750 tons per annum, supposing the vessels to carry 50 tons on the average; the quantity carried inland may be about 150 tons a year.

The sort is mostly flag stones for paving, and the greater part are sent to London. The best paving stone, when smoothed, is about 40s. per 100 feet superficial: it is from $2\frac{1}{2}$ to 3 inches thick; a hundred superficial feet weigh about $1\frac{1}{4}$ tons; fourteen cubic feet of stone are about 1 ton weight. Some of the stones are cut into small squares for pitching, and are called *plattas*, or *flat-nas*.

The men employed in stone work earn about 20s. per week, and including boys, amount to 300.

"This stone is said to be more hard and durable than any other in the kingdom, and what is called the best Purbeck Portland block, is delivered in the vessels at 12s. per ton. The price of the stone for foot pavements, is 24s. per 100 square feet, delivered at Swannage, and the price of freightage to London, is 8s. 6d. per ton, in time of war, and 6s. 6d. in time of peace; the price of pitching stone for streets is 5s. per ton at the pit; it is estimated

rated that 200 stones are a ton weight, and that they will pave a square of 100 feet.

“ The feet and caps for rick staddles, are worth about 3*s.* 6*d.* or a set of nine delivered at Swannage, of the best sort, at 36*s.* per set; but there is an inferior sort, not tooled, which is worth only a guinea, a set. The tiling stone is worth at the quarry, 5*s.* 4*d.* per ton, and is delivered at Swannage at 8*s.*; this stone is sometimes burnt into lime, which is said to be of the best quality, and preferred by plasterers to any other in the kingdom; it is sold at 7*d.* per bushel, or 14*d.* per hundred weight.

“ There is a ground-rent paid to the owners of the land, in nearly the following proportions: 6*d.* per ton, for front walling; 3*d.* ditto for scalp back; 2*d.* for rough ditto; 2*s.* per 100 feet of ashlar, and the same for steps; 1*s.* per 100 feet for pavements, and 1*s.* for a set of rick staddles; and all smaller kinds of stone in proportion; in short, about 6*d.* per ton for all kinds of stone raised here.”—“ There is another quarry at Long Burton, near the Vale of Blackmoor, from which some small quantity of stone is taken, that will bear a polish, and in some measure resembles the Derbyshire marble; and is much used for chimney-pieces in this county, but no exportation of it is made.”—*Claridge.*

Potters' Clay.—A considerable stratum of this valuable substance is found at various depths, in several parts of the sandy district, in the vicinity of Wareham, Poole, and Corfe Castle, but the principal part of it is dug at Norden, near Corfe Castle; and by means of an iron-rail-way is conveyed to Poole Harbour for exportation.

The principal pits are on the western side of the turn-
pike

pike road, between Wareham and Corfe Castle; above the clay is much sand, and in some places a small vein of bad sulphureous coal, barely worth burning.

The stratum of clay, though varying much in quality and depth, extends about three miles in length, and one mile in breadth, but with many intervals of clay unfit for use. Thrasher's clay pits, which are more to the eastward, have been opened many years, but much of the clay in those pits is useless, containing a small portion of iron, but which cannot be perceived by the eye, till the clay is burned in the fire, when it looks as if scattered over with pepper.

Still farther to the east, in the parish of Studland, there is a kind which is called brown clay; and this, if used without an admixture of one-third of the best kind, shrinks very much, and warps in the fire. It is said to be a weak-bodied clay.

From 16 to 20,000 tons of potters' clay are annually exported from Purbeck, and sent to Liverpool, mostly for the supply of the potteries in Staffordshire, &c.

About 3 or 4000 tons of an inferior kind of clay are annually exported from Poole to London and Bristol, where it is employed in making brown stone-ware, such as pickling-jars, &c. The bad clay will not burn white and the particles of iron cause blisters.

Upwards of 100 men are employed in this business in Poole and Purbeck, but not more than half as many are employed in Purbeck as was the case before the iron rail-way was made. The clay is dug by the day; it being an operation that requires care. Three shillings and sixpence is the price of a day's work, and the clay is delivered in Poole Harbour at 20s. a ton, and 2½ cwt. extra is allowed, on account of the loss of weight which it experiences.

This information was given by Mr. Willis of Norden, who has the management of the principal clay-pits.

There is very little potters' ware made in this county.

SECT. IV.—WATER.

THE following list of the Rivers and Brooks in Dorsetshire, is given by Mr. Boswell, in his accurate and useful work, entitled "The Civil Division of the County of Dorset."

Allen, rises above Wimborne-All-Saints.	Frome*.
Axe, or Exe.	Hooke, or Owke.
Birt.	Holbrook, a rivulet, falls into the Stour.
Bride.	Ivel, or Yeo.
Bredy.	Liddon.
Cole.	Laddon, a rivulet, falls into the Stour.
Car, or Chare.	Luckford Lake.
Cerne.	Lyme.
Corfe.	Milborne.
Combsbrook, a rivulet, falls into the Stour.	Newelle.
Devilsbrook, a rivulet, falls into the Frome.	Osmersayte, falls into the Stour.
Dewilish, or Dewlish.	Piddle, or Trent.
Ewerne, or Iwerne.	Perret, or Parrot.

* The banks of this river were anciently inspected and taken care of by a particular officer.

Shreenwater, a rivulet, falls into the Stour.	Tarent, or Tarrant.
Sherford.	Trill, a rivulet, falls into the Stour.
Simene.	Terrig, a rivulet, falls into the Allen.
Seate, a rivulet, falls into the Liddon.	Way, or Wey.
Sydling.	Winterborne, N.
Stour*, or Stower.	—————, S.
Sturkell, a rivulet falls into the Stour.	

It is evident from a perusal of these names, that many places have been called from them.

The *Frome* rises near Evershot, and runs from thence to Frome, St. Quintin, Chelmington, Calstock, Chilfrome, Maiden-Newton, Frome, Vauchurch, Cruckston, Frampton, Muckleford, Bradford Peverell, and Charminster; above which last it branches from several islands, and joins again near Dorchester. It passes thence by Frome, Whitfield, Stainsford, Fordington and Bockhampton, between which last and Ilington, at Frome Belet, it receives the Winterborne; thence runs to Woodford, Tindleton, Moreton, Wool, Burdon, East Stoke, East Holme, and Wareham; and three miles below the last falls into Poole-bay. This is the true course of the Frome, which is marked by the several places denominated, from it, from Frome St. Quintin, to Frome Belet.

Leland says, some suppose the farthest spring of Frome is at Rentford, two miles above Hooke-park; but that the most common opinion is, that it rises in a great pond

* The banks of this river were anciently inspected and taken care of by a particular officer.

in Hook-park. From Frampton he traces it right; and adds, that Fordington-bridge was of stone, and that Holme-bridge had four arches.

Mr. Baxter says, the British name was *Var*, or *Variti*, from *Wye*, *Water*, and *Var*, q. d. *unda mansueta*; and that the river is synonymously called *Frau* and *Frome* from a dialect of the Scoto Brigantes, among whom *Fren* and *Fream* signifies a stream, or river. *Fraii*, in British, means the same; in another dialect, *Rbig*, and *Rbii*, which agree with the Latin *rivus*, from the Greek *ρῆν*, in the Eolic dialect *ρῆν*, to flow. Camden from Asser, shews that *Frau* was the Saxon name of this river, and *freu*, in British, signifies to flow; whence the ancient palace of the British Kings in the Isle of Anglessea was called from the neighbouring river *Aber Fraw*, quasi *Fraume Ostium*. That *Var* was another name for *Frome*, is evident from the modern name of Warham, q. d. *ud Varium*, a dwelling on the *Var*. There is a river still called *Var* in France.

Hollinshed and Camden rightly place the source of this river at Evershot, or as the latter spells it, Evarshot, in which is preserved the British name of *Var*. Hollinshed says it is improperly called *Frome* for *Fraume*; he should have said *Fraum*.

Into this river flow the following rivulets:

One at Catstock, from Benvil Lane in Corscombe, by Rampisham and Wraxall.

Another from Compton Valence at Frampton.

Near Notten, a brook that rises in Winfrith Eagle.

At Maiden Newton, the Hook.

At Muckleford, the rivulet from Upsydling, by Sydling St. Nicholas, and Grimston.

At Charminster, the Cerne.

At Luckford, west of Stoke, it receives Luckford Lake.

North

North of Stafford the South Winterborne.

Bridges over it are, one of four arches at West Holmer, Wool Bridge of five arches, Great and Little Mohuns Bridge, Stocking Bridge, and Mrs. Pitt's Bridge, of three arches, near Dorchester.

The *Hooke*, or *Oyke*, rises at Kentcombe, two miles above Hooke Park, or in the great Pond in Hooke Park, and passing by the Tollers, falls into the Frome at Maiden Newton. Leland says, a stream out of the pond in Hooke Park comes into the Frome.

The *Ivel*, anciently *Yeo*, rises from seven springs, called the Seven Sisters, at a place commonly called Horethorn, in an hill N. E. from Sherborne, thence soon gathering into one bottom, comes to the mere at the end of the castle, and runs on the S. side of the town, and thence, increased by another brook, to Castleton, Sherborne, Thornford, Bradford, Clifton, and Yeovil. About Sherborne Lower Mill a brook of much like quantity comes by Heydon from Purse Caundle, three miles E. between the park and mere, and runs in W. by the bottom without the park, between it and Sherborne water. This last water runs three or four miles to Clifton, and soon after falls into the Ivel. So Leland: but in the MS. notes of some unknown writer on him, printed by Hearne, we are told that the spring is not at Purse Caundle, but at Milborne Week, two miles from Sherborne, and called Bradley Spring. This stream supplies two mills at Milborne Port, and thence runs through Milborne Moor, to a mill at Goathill, and so down along by the park wall, through Lord Digby's gardens, and Dinny Bridge, to an overshot mill, where it joins the Seven Sisters.

At Langport this river receives the Parret, and under its name falls into the sea at Stert Point. Baxter derives

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the name of Ivel from *Ui vel*, or *Gai bel*, q. d. undæ caput.

Near Bradford it receives a forked rill from the south from about West Chelbury and Chetnol; below which last village the other head falls into the same, and both proceed to Beer Hackt and Thornford, till they meet the Ivel; which between Clifton and Yeovil, and beyond the latter, becomes a boundary between this county and Somerset.

A brook that rises at Ryne falls into it at Bradford.

Bridges on the river Ivel are, one of seven stone arches, a little above Bradford; another about a mile from Clifton; a third in the way to Sherborne; others at Yeovil and Ilchester.

The *Piddle* rises N. of Piddle Trenthide Church, and passing thence by several villages to which it gives name, to the N. side of Wareham, falls into the sea, near Keyworth. Leland, and after him Hollingshed, quotes Marianus Scotus as speaking of this river. It is called *Trent* by Asser. Mr. Baxter derives this name from the British *Troient*, a winding river. Mr. Llyud, says *Py-deau*, in British, signifies a draw-well or mine. This is commonly called Wareham N. river, as the Frome is the S. river.

A little N. of Piddle Trenthide Church it receives a little brook that rises at Alton; and a little lower another from Plush.

A brook that rises at Hilton, and runs by Milton, Milburn, and Beer, falls into it near Turner's Piddle.

Another from Cheselborne through Dewlish, falls into it at Burleston.

The *Stour*, one of the most considerable rivers of this county, through which it takes the greatest part of its course, though it neither rises nor empties itself in it,
rises

rises from six heads, three of which lie on the N. side of Stourton Park, within the pales, the other three without the park, in Sir R. C. Hoare's garden. After the union of these, it goes to Long-Lane Mill, Silton, Milton, and Gillingham; below which last it gives name to several villages, Stower Provost, Stower Paine, Sturminster, Newton, and Marshall.

It runs thence to Blandford, Wimborne, Canford Parley, from whence it enters Hampshire, and falls into the sea at Christ Church, through Iwer-bridge. Its course is from N. W. to N. E.

It receives Shreen Water and the Laddon near Gillingham; and below Gillingham a nameless water from Meere.

Below Stower Provost, Cale water.

Near Hinton St. Mary, the Dewilish and Liddon in one channel.

Above Bagbere, a water that rises at Ibberton.

Near Hamoon, a water that comes from Hargrove, or Sutton Walrond, as Coker, by West Orchard, and another from Fontmell.

Near Tarent-Crawford, the Tarent.

Near Sturminster Marshall the South Winterborne.

At Wimborne, the Allen.

At Holmhurst, in Hampshire, it takes in two brooks in one bottom; one comes from Woodland Park by Holt and Holt Park; another from above Up-Wimborne, by Edmondsham, Verswood, and Mannington, and joining about St. Leonard's, they go to Hern Bridge and so into the Stour. Another rises at Mappowder, and, passing by Kingstag Bridge, and Plumber, fall into the rivulet that comes from Duntish, and both join the Stour near Hinton.

Mr. Baxter derives Sdora, or Stora, (Bdora, as Ravens)

vennas) from *Eas dūr, aqua profluens*. *Dour* or *Dur* was a general name for water among the Britons, as *Dour* in Irish. There are several rivers of the name of Stour in England; in Worcestershire, and Kent; two in Piedmont are still called *Stura*; others there and in France, *Doris, Doira, Doire, Dore, Dour*.

The vicinity of this river to the Avon, (*Alauna*) where they fall into the sea near Christ Church, seems to have occasioned some mistakes.

This river yields trout, eels, and tench, which last is observable, because that fish generally delights in ponds and pits.

The most remarkable bridges on it are Kingsmill Bridge, in Marnhull, Sturminster Newton Bridge, built with stone, Tarent Bridge of six arches, Blandford Bridge, Whitmill Bridge, of eight arches, in Sturminster Marshall, Crawford Bridge, of seven or eight arches, in Spetisbury, Julian's Bridge, at one end of Wimborne, Hayward Bridge, of six or seven arches, in Shillingston, half a quarter of a mile lower; Canford Bridge, of eleven arches, and, lastly, Longham Bridge, in Hampreston.

Mr. Skrine, to whose work on the rivers and coasts of Great Britain, we have already been indebted, gives the following account of the rivers of Dorsetshire, and of the districts through which they flow :

“ The *Char*, the *Eype* (or *Brit*) and *Wey*, are the three rivers of Dorsetshire bordering upon Devonshire; but none of them are particularly distinguished by the features of landscape, the county through which they flow being a dreary compound of bare heaths and downs, intersected with marshes, and scantily provided with villages. That celebrated bathing-place, which is formed by the combined towns of Melcombe Regis and Weymouth, graces the exit of the *Wey* to the sea, remarkable

able for its grand semicircular beach, and its excellent, as well as level sands. These advantages, and the preference given to this place by the Royal Family, have raised it into high consideration; splendid rows of houses being formed, with an esplanade in front of them towards the coast, for a great extent, where they command the whole of the bay, bounded by great chalky cliffs, and backed by the downs of Dorsetshire.

“The Char and the Eype have no striking points, except that Charmouth, at the exit of the former, on the great western road, is preferred by some, as a bathing-place, to Lyme, which is far more beautifully situated in its neighbourhood. The Eype, or Brit, from Beaminster, and another stream westward of it, falls into the sea in Bridport harbour, a few miles below that town. These rivers all descend from the Dorsetshire downs, and their course is nearly southward.

“The Frome may be called the most considerable river in Dorsetshire, rising, like the rest, in that vast tract of downs which divides it from Somersetshire, its two channels uniting in a pleasant bower at Maiden Newton, from whence it pursues a south-east course to Dorchester, fed afterwards by various streams from the hollows in the downs on the south, and meeting the Piddle from the north, as it turns more and more eastward to reach Wareham, and forms the great expanse of water constituting Poole harbour.

“The country through which this river takes its course, is but thinly inhabited, and bare of wood, but the range of downs that extend parallel with the latter part of its course, separating its vale from the coast, are formed by nature in the boldest manner, containing many tumuli, and ancient encampments, with the singular curiosity of one perfect Roman amphitheatre, near Dorchester,

within view of the old fortress of Maiden Castle. Dorchester may be called a pleasant town, from the neatness of its streets, and, above all, from the avenues and planted walks by which it is environed and approached, after the manner of many French towns, which has an increased effect in the midst of so bare a country. Mr. Pitt's handsome seat lies near this town, in a well planted park. Wild heaths succeed to the downs, before the Frome reaches the sea, and Poole harbour is a very extensive sheet of water, bounded towards the south-west by the Isle of Purbeck, in which the towers of Corfe Castle make a considerable figure.

"The Stour finds its source in six streams, at Stourton, in Wiltshire, three of which are in the park of Stourhead. Winding through Gillingham forest, round the high hill on which Shaftesbury stands exalted, it penetrates through several downish bourns, increased by their rivulets, and descending southward to Stour-minster, afterwards pursues nearly a south-east direction, aslant the eastern division of Dorsetshire, joined by the Allen on the north at Wimborne, to Christ Church, in Hampshire; where, meeting the *Avon* of that county, after being a little increased by the Blackwater from Cranborne, both fall into the sea opposite the Isle of Wight.

"Though perhaps somewhat less than the Frome, this is certainly by far the pleasantest of the Dorsetshire streams, forming, in its passage, the charming dell beneath the cliff of Bryanstone, which Mr. Portman has so successfully embellished with walks, groves, and a magnificent mansion-house. Blandford, one of the neatest towns in the west of England, rises on its banks, like a phoenix from the ashes to which successive fires had reduced it. The vicinage of this river in particular, and indeed Dorsetshire in general, are noted for a profusion
of

of fine seats, and a race of noblemen and country gentlemen, who exercise the splendid and captivating hospitality of past ages, yet uncontaminated by the enticement of manufactures. Lord Dorchester's extensive plantations, surrounding his noble structure and park of Milton Abbey, occupy a central point north of the great road from Blandford to Dorchester; and the Stour, in its way to the east from the former town, passes by many others. Murley, at a small distance from Wimborne, may boast a library superior to most in Europe; nor are the seats of Mr. Sturt at Critchell, of Lord Shaftesbury at Wimborne St. Giles, and of Mr. Drax Grosvenor at Charborough, less conspicuous, though more distant from the river. The Stour here forms a pleasant vale, between gentle hills, covered with woods, and a downish ridge, marked with several encampments, of which Badbury Ring, adorned with a high clump, is most remarkable. The ancient towers of Wimborne Minster mark the pleasant position of that town, but the country becomes flat and heathy as the river advances to the Hampshire coast."—(Pp. 277—283).

Some of the smaller streams in the chalky district are dried up, or nearly so, in the summer, hence receiving the name of Winterbournes. It may be expected that water is often deficient on the high lands in every part of the county, and this deficiency is sometimes prevented, in some measure, by the formation of artificial ponds, with a bottom composed of rammed clay, covered with stones, &c. as in other chalky countries.

The wells in some places are very deep, and the water is pumped up by means of double buckets. In other cases, where they are shallow, the water is drawn by hanging a bucket at one end of a long beam, the centre of which is supported on a forked post, and the other

end is made sufficiently heavy, by attaching a large stone to it. The well at Kingston Russel is forty yards deep to the water, of which there is about ten feet. This well used to be sometimes dry, till it was deepened by piercing through a hard stone at the bottom.

Fisheries.—"The Stour yields trout, eels and tench, which last is observable, because that fish generally delights in ponds and pits.

"The sea on our coast abounds with sturgeons, turbot, mackerel, plaice, soles, basse, whittings, congers, porpoises, lobsters, red and grey mullet, thornbacks, piper or gurnet, frill or scollop, shrimps, prawns, and oysters. The rivers furnish salmon, pike, carp, gudgeons, perch, &c.

"The only considerable fishery is that of mackerel, between Lyme and Portland, from April to June: thirty or forty thousand have been caught at a draught near Abbotsbury, and a hundred have been sold for a penny."
—*Hutchins.*

Mineral Waters.—"These are chalybeate, at Farringdon, and Aylwood, in Corfe; sulphureous, at Sherford, in Morden, Nottingham, and Sherborne; salt at Chilcombe; and petrifying at Sherborne and Bothenwood, near Wimborne-Minster."—*Hutchins.*

CHAP. II.

STATE OF PROPERTY.

SECT. I.—ESTATES, AND THEIR MANAGEMENT.

ESTATES in this county are in general large, and consequently the owners are few, in comparison with those of most other counties. They have had their share of improvement: by the introduction of the turnip system into the southern districts, the breed of sheep has been greatly improved, and their number very much increased. The farmers have, for the most part, abandoned their old wretched system of sowing three successive crops of corn, formerly very much in use, and have substituted in its stead that of taking a crop of turnips after wheat, with barley and grasses.

Some of the principal estates are under the care of land surveyors; others are managed by practical farmers; and several large properties are superintended by gentlemen of the law. Some of the land stewards seem to be well convinced, that for the encouragement of improvements, the farmers should have a better kind of security than they generally obtain.

SECT. II.—TENURES.

THE copyhold tenures in this county are now become very few, owing, it is presumed, in a great measure to the frauds practised on the respective lords of manors, by the customary tenants marrying in the last stage of decrepid old age to very young girls, by which, according to the custom of copyhold tenures in this county, the widow is entitled to her free bench on the husband's copyhold. The few copyholds now existing, consist chiefly of a mere cottage and garden, without any other lands being attached to them.

There are other lifehold tenures of far greater extent, which are held by lease for one, two, or three lives, or for ninety-nine years; for these a suitable fine is paid by the lessee, at the time the grant is made, and a yearly rent, in general not exceeding one-twentieth part of the yearly value, as the fine is the principal consideration. These leases contain covenants to secure the buildings from being permitted to fall into ruins, for the payment of rent, and performing the offices, &c. to which the estate is liable.

The proportion of freehold in this county, compared with what is held by other tenures, is in favor of freehold in the proportion of four to one.

The following are the conditions of an old expired lease for three lives, viz. a man and his two sons, or ninety-nine years, if they happen so long to live: fine 280*l.* Yearly rent 2*l.* 13*s.* 4*d.* A capon or 1*s.* A harvest journey, or 6*d.* Cleaning mill-seat, or 4*d.* Ploughing journey, or 2*s.* 6*d.* Herriot 5*l.*

The town of Beaminster, and the lands near it, is
mostly

mostly under the tenure of customary copyhold; the hill, lands, and farms are freehold, except Langdon Farm, which is a church leaseho'd, held under the Dean and Chapter of the Cathedral Church of Salisbury. In leases for three lives, the reserved rent is generally trivial, such as a few bushels of corn, &c. and the fine is about seventeen years purchase of the estate, at a fair valuation.

Fordington is mostly leasehold and copyhold; and estates under the latter kind of tenure are held for three lives and a widowhood.

Henry Bankes, Esq. has many small estates, from one acre to twenty, under leases for three lives. They are generally renewed; and Mr. B. has granted some new leases of this kind, to encourage enclosures on the heaths, with scarcely any fine in the first instance, though it is probable such improvements may take place, as to render these estates valuable at a distant period.

With the exception of houses in towns, cottages, gardens, &c. it is generally understood that there are few farms under leases for lives, unless in the Vale of Blackmoor, and on the borders of Wiltshire: a deal of the latter, especially near Shaftesbury, was originally Abbey land, and has been granted out ever since.

On the whole, it may be said, that in Dorsetshire, life-tenure is wearing out, and fee-simple, more and more prevailing.

It has been remarked, that there are a greater number of Yeomanry in the western part of Dorsetshire, especially in that part which lies detached, surrounded by Devonshire, than in any other part of the county.

The parish of Sixpenny Handley is said to have received its name from the estates being held under the tenure of paying 6d. each to the Lord of the Manor.

“ The

"The inhabitants of Portland are almost all Freeholders; their tenure is gavelkind, whereby the lands of the father are equally divided at his death among all his sons: or the land of a brother or sister among all their brethren, if they have no issue of their own."—*Hutchins.*

The following List of the Manors, and reputed Manors within hundreds, in this county, is given by Mr. Boswell, in his "Civil Division of Dorsetshire."

Abbotsbury.	Blandford St. Mary.
Affspiddle.	Bloxworth.
Bryantspiddle.	Bradford Abbas.
<i>Thwoop.</i>	Peverell.
Alton N.	Bradpole.
Alton S.	Bridport.
Alner.	Broad Main.
<i>Mapperton.</i>	Broad Way.
Allington.	Broadwindsor.
Anderston.	<i>Little Windsor.</i>
Ashmore.	<i>Childhay.</i>
Askerwell.	Bryanston.
Athelhampston.	Buckland Newton.
Batcombe.	<i>Duntishe.</i>
Beer Regis.	<i>Filey.</i>
<i>Doddingbeer.</i>	Buckland Ripers.
<i>Shitterton.</i>	Burton Bradstock.
<i>Beerhacket.</i>	Came Winterborne.
<i>Knighton.</i>	Canford Magna.
Belchalwell.	<i>Canford Prior.</i>
<i>Beaminster Prima.</i>	Cattistock.
<i>Beaminster Secunda.</i>	<i>Holway S.</i>
Bettescombe.	Catherston Lewston.
Bincombe.	Caundle Bishop.
Blandford Forum.	<i>Caundle Waks.</i>
	Caundle

Caundle Parse.	<i>Wimborne Pottern.</i>
Cerne Abbas.	<i>Fairwood.</i>
Chaldon E.	Crawford Tarrant.
Chalbury.	<i>Critchell Goves.</i>
Charborough.	—— <i>Lucy.</i>
Charminster.	—— <i>Moore.</i>
Chardstock.	—— <i>Little.</i>
<i>Bowditch.</i>	Dalwood.
Charlton Marshall.	Dewlish.
Cheddington.	Durweston.
Chettle.	Edmondsham.
Cheselbourne.	Farnham.
Chideock.	<i>Duke of Bolton's.</i>
Chilcombe.	<i>Osmond.</i>
<i>Okeford, Upper.</i>	Fifehead Neville.
—— <i>Lower.</i>	Folke.
Clenston Winterborne.	Fontmell Magna.
Clifton Mabank.	Fordington.
Coombe Keynes.	Frampton.
Compton Over.	Frome St. Quinton.
—— Abbas.	Frome Vauchurch.
—— Valence.	<i>Gillingham Major.</i>
Corfe Mullen.	<i>Milton upon Stour.</i>
<i>Corfe St. Nicholas.</i>	Gunville Tarrant.
Corfe Castle.	Halstock.
<i>Kingston.</i>	Hampreston.
Corscombe.	Hamworthy.
<i>Tollerwhelme.</i>	Hamoon.
Cranborne.	Handley.
<i>Cranborne Borough.</i>	<i>Gussage Higher.</i>
—— <i>Priory.</i>	Haselbury Bryan.
<i>Alderhold.</i>	Hawkchurch.
<i>Blagdon.</i>	Haydon.
<i>Boveridge.</i>	Hilton.
<i>Holwell.</i>	Hinton Martell.

Hinton

Hinton St. Mary.	<i>Cha. Sturt, Esq.</i>
Hinton Tarrant.	<i>W. Trenchard, Esq.</i>
Hooke.	Mappowder.
Horton.	<i>Lord Spencer's.</i>
Houghton Winterborne.	<i>Cokers.</i>
Ibberton,	<i>Hull.</i>
Iwerne Minster.	<i>Littleton.</i>
Keinton Magna.	<i>Thurnett.</i>
Keinton Tarrant.	Marsh Wood.
Kingston Winterborne.	Martinstown.
<i>Muston.</i>	Melbury Bubb.
Knowle.	<i>Woolcombe Matravers.</i>
Langton Matravers.	Melbury Osmond.
<i>Langton Wallis.</i>	—— Sampford.
Langton Herring.	Milborne Stileham.
Long Langton Blandford.	<i>Milborne Churchstone.</i>
Launceston Tarrant.	Milton Abbas.
Leweston.	——, W.
Leigh.	Minterne Magna.
Litton Cheney.	<i>Middlemarsh.</i>
Longburton.	<i>Tiley.</i>
Loders,	Morton.
<i>Loders Matravers.</i>	Mosterton.
Luccombe,	Motcombe,
Lulworth E.	Monkton Tarrant.
—— W.	Netherbury.
<i>Burngate.</i>	<i>Netherbury in Terra.</i>
<i>Bindon Little.</i>	<i>Slape.</i>
Lydlinch.	<i>Strode.</i>
Lyme Regis.	Osborne.
<i>Lyme Abbots.</i>	Okeford.
Maiden Newton.	Orchard E.
<i>J. F. Browne, Esq.</i>	Osmington.
<i>H. H. Henley, Esq.</i>	<i>Ringstead Upton.</i>
<i>Sir W. Oglander, Bt.</i>	Owre Moigne.
	Patley

Parley W.	<i>Crawfurd Magna.</i>
Pentridge.	Stafford W.
Perret S.	Binghams.
Pillsdon.	Everards.
Pimperne.	Stalbridge.
Poorton N.	<i>Gomershay.</i>
Poorstock.	<i>Thornhill.</i>
<i>Nettlecombe.</i>	Steeple.
Portisham.	<i>Creech W.</i>
<i>Waddon W.</i>	Steepleton Winterborne.
Poxwell.	Stickland Ditto.
Piddletown.	<i>Quarleston Winterborne.</i>
Piddle Hinton.	<i>Brockhampton.</i>
Piddle Trenthide.	Stockland.
<i>Pulham W.</i>	Stoke Abbots.
—— E.	<i>Bromley.</i>
—— Grove.	Stoke E.
<i>Causeway.</i>	Stokeford.
Rampisham.	Binnegar.
Rawson Tarrant.	Rushton.
Ruston Tarrant.	<i>Holme W.</i>
Ryme Intrinseca.	Stoke Gaylard.
<i>Nerbrooke.</i>	—— Wake.
Shapwick.	Stower Paine.
—— Champagne.	Stower Provost.
—— Plecey.	Stratton.
Vinters Fee	Sturminster Marshall.
<i>Alcester Liberty.</i>	<i>Georges.</i>
<i>Dean of Sarum in Shas-</i>	<i>Bluetts.</i>
<i>ton.</i>	<i>Bonvilles.</i>
Sherborne.	<i>Moore Court.</i>
<i>Pinford.</i>	<i>Loops.</i>
Shilling Okeford.	<i>Tirels.</i>
<i>Beer Marsh.</i>	<i>Wadhams.</i>
Shipton George.	<i>Slape.</i>
<i>Middlestreet.</i>	<i>Newton.</i>

Sutton

Sutton Pointz.	Leigh.
——— Waldron.	Wilksworth.
Swyre.	Winfrith Newburgh.
Sydling St. Nicholas.	Longcrotts.
Symondsbury.	Wichampton.
Thornford.	Woodsford.
Tincleton.	Wool.
Tolpiddle.	Woolland.
Throop.	Newland.
Toller Porcorum.	Wootton Fitzpaine.
Turnwood.	Champernhays.
Turner's Piddle.	Wootton N.
Upway.	Worth Matravers.
Wootton Abbas.	Wraxall.
Whitechurch Winterborne.	Wyke Regis.
Whitcombe.	Wareham, N. Cary.
Wimborne Deanery.	Kesworth.
Wimborne Borough.	Yetminster Prima.
Burnsley.	Yetminster Secunda.
Kington Lacy.	Zelston Winterborne.
Abbotstreet.	

List of the Manors, of the Hundreds, and of the Lords to whom they belong, from Mr. Boswell's "Civil Division of Dorsetshire."

<i>Hundreds, &c.</i>		<i>Lords, &c.</i>
Alcester liberty,	....	George Foyle, Esq.
Alton Pancras liberty,	....	Winton College.
Badbury hundred,	....	Henry Bankes, Esq.
Beer Regis hundred,	....	R. E. D. Grosvenor, Esq.
Beaminster hundred,	....	{ J. Lethbridge, Esq. and others.
Bridport borough,	....	Bailiffs, &c.
Blandford borough,	....	Bailiffs, &c.
Broadwindsor liberty	....	Sir John de la Pole, Bart. Bindon

Bindon liberty,	....	Thomas Weld, Esq.
Buckland Newton hundred,	}	Charles Sturt, Esq.
Coombes Ditch hundred,		L. D. G. Tregonwell, Esq.
Corfe Castle borough,	....	Henry Bankes, Esq.
Cerne hundred,	....	{ H. Chudleigh Haines, Esq.
Culliford Tree hundred,	....	Thomas Weld, Esq.
Cranborne hundred,	....	Marquis of Salisbury.
Cogdean hundred,	....	Henry Bankes, Esq.
Dorchester borough,	....	Mayor, &c.
Dewlish liberty,	....	Earl of Ilchester.
Frampton liberty,	..	F. J. Brown, Esq.
Fordington liberty,	....	Prince of Wales.
Gillingham liberty,	....	Sir Francis Sykes, Bart.
Halstock Liberty,	....	Dr. Disney.
Hundredsbarrow hundred,	}	Sir Wm. Yea, Bart.
		Wm. Churchill, Esq.
		J. Trenchard, Esq.
Hasilor hundred,	....	Henry Bankes, Esq.
Knowlton hundred,	....	Earl of Shaftesbury.
Loosebarrow hundred,	....	{ Sir Wm. Yea, Bart. Wm. Churchill, Esq. J. Trenchard, Esq.
Lyme Regis borough,	....	Mayor, &c.
Lothers liberty,	....	Bishop of Sarum.
Owermoigne liberty,	....	Hon. L. Damer.
Pimperne hundred,	....	H. W. Portman, Esq.
Poorstock liberty,		
Piddletown hundred,	....	Hon. Horatio Walpole.
Piddlehinton liberty,	....	Eton College.
Piddletrenthide liberty,	....	Winton College.
Portland liberty,	....	The King.
Rushmore hundred,	....	Sir James Hannam, Bt.
DORSET.]	G	Ryme

Ryme Intrinsic liberty, ...	Prince of Wales.
Rowbarrow hundred, ...	Henry Bankes, Esq.
Sydling St. Nicholas liberty, }	Winton College.
Sutton Pointz liberty, ...	Thomas Weld, Esq.
Shaston borough, ...	Earl of Shaftesbury.
Sixpenny Handley hundred, }	Earl of Uxbridge.
Sturminster Newton } Castle hundred,	Lord Rivers.
Stower Provost liberty, ...	King's Coll. Cambridge.
Stoborough liberty, ...	Lord Rivers.
Sherborne hundred, ...	Earl Digby.
Tollerford hundred, ...	Earl of Ilchester.
Wabyhouse liberty, ...	George Gould, Esq.
Wareham borough, ...	Mayor, &c.
Weymouth borough, ...	Ditto.
Winfrith hundred, ...	Thomas Weld, Esq.
Whitechurch Canon- } icum hundred,	Earl Powlett.
Wyke Regis liberty, ...	Earl of Ilchester.
Whiteway hundred, ...	The King.
Wimborne St. Giles } hundred,	Earl of Shaftesbury.
Yetminster hundred,	Earl of Digby.

CHAP. III.

BUILDINGS.

SECT. I.—HOUSES OF PROPRIETORS.

THERE are a considerable number of elegant seats in many parts of the county, which are surrounded and adorned with pleasure grounds and plantations, in a style suitable to the rank and property of their proprietors.

Bryanstone-house, the seat of E. B. Portman, Esq. and Kingstone-house, the seat of Wm. Morton Pitt, Esq. may be mentioned as among the first, in point of elegance and beauty of situation.

Sherborne-park is adorned by a fine piece of water, occupying about ninety acres, which, together with the plantations, and pleasure grounds which surround it, contributes much to render the Castle a delightful country residence.

SECT. II.—FARM-HOUSES AND OFFICES.

MANY of the farm-houses, particularly those belonging to the large farms on the chalky district, are very ancient buildings, and have all the appearance of having been the seats of the proprietors in former times.

They are mostly built with stone; and many of the ancient family mansions are covered with stone tiles, with

window-frames likewise of stone, and turrets, battlements, and pointed arches, and carved work, in the Gothic style. Buildings of this kind may be seen, at Athelhampton, Waterson, &c.

The more ordinary farm-houses, though generally built of stone, are frequently covered with reed thatch.

Repairs—Are mostly performed at the expense of the landlords, but sometimes at the joint expense of the landlord and tenant, the former procuring all the materials; and this is probably the best plan that can be adopted, the tenant paying a moiety of the expense, *if it were for no other reason* than to give him an interest in observing the workmen, and checking in some measure their habitual propensity to idleness, &c.

To oblige a tenant to perform expensive repairs on houses and other buildings, where his interest will quickly cease, seems too much out of the ordinary course of human affairs to produce good effects. Mr. Fox of Beaminster, has seen so much of the consequences of this system, in the awkward, clumsy, and inefficient manner in which such agreements are usually fulfilled, that he thinks the consequence is much the same, as would follow from covenants to let the buildings fall to entire ruin.

Mr. Wickins, of Mapperton, an eminent land surveyor, and many years land-steward to several gentlemen, observes, that the average expense of repairs, a proper value being put on every article employed, is one-sixteenth of the rent of the farm.

He also observes, that a new farm-house cannot be built for less than 600*l.*, a barn 300*l.*, and probably 1500*l.* will be required to complete all the buildings necessary on a farm.

The

The original cost of cottages, containing two rooms below, and two chambers, with a sloping or continued roof, extending over other little appendages, for tubs, &c. is about 80%. and the rent from 2. to 3%.

The cottages near Beaminster are supposed to cost about 60% a piece. But there are a great many cottages in the county, which have no more than three rooms, and some have only two, as is the case in most other districts.

In the clay-district, where stone can be procured within a moderate distance, all kinds of walling are composed of this material, though mud walls are sometimes to be met with.

In the chalky division of the county, many walls of cottages, barns, &c. are built partly of large flints, and partly of hard chalk, the flints being laid, of course, at the outside of the wall, and with the fractured or black part of the surface in view. The wall round a great part of the park of the late Lord Dorchester, at Milton Abbey, is built entirely with flints.

There are many mud-walled cottages, barns, &c. in the county, but principally in the district to the east of Dorchester. They are composed of road-scrappings, or other kinds of earth which are a little cohesive, and well mixed with a large quantity of chalk and straw.

In building walls of this kind, it is necessary to lay a foundation of stone, or such hard materials as will resist the injurious effects of wet, as well as the intrusions of vermin. The implement which is principally used is no other than a dung-fork, and the walls are generally made two feet thick. The first layer, or strata, is built about two and an half feet high all round the foundation of the building, or as far as is convenient; and, after the interval of about a week, which is allowed for the first layer to harden and consolidate, another is added, and

the work proceeds in a regular manner, till the whole is completed. Garden walls, &c. are often built in this manner, but have always a coping of thatch to secure them from the rain. They are very durable, when well built and properly secured by a coping of thatch, and a good foundation; and some gentlemen think there is reason to believe they may thus last one hundred and fifty years. Mr. Balson, of Athelhampston, has a yard inclosed all round with a mud wall, and a shed under, in which the cows eat their straw in winter, in cribs of hedge-work. Some other gentlemen have yards of nearly the same kind, which must contribute much to the health and comfort of the animals which feed in them.

Mud walls are generally plastered, to improve their appearance, as well as to add to their durability.

The houses that are built in this manner in the sandy district, are composed of loamy and gravelly materials, and sometimes contain heath instead of straw. They will last many years, but are not so durable as those where much chalk is used, and consequently consist in general of only a ground floor, which is also not unfrequently the case where the walls are built of stone.

In mud-walled houses, it is often necessary to prop some of the walls, in consequence of the cracks at the corners, which might have been prevented by laying a small quantity of rough wood across the corners, or junctions of the walls, at their first erection.

In the Isle of Purbeck, and in the vicinity of Sherborne, many houses are covered with stone tiles, which are flat stones, often an inch thick, and require very strong timbers to support them; but the major part of the buildings in the villages, and even some of the towns, are covered with what is called *reed-thatch*, or wheat straw which has not been bruised by the flail. Thatch-
ing,

ing, in this mode, is supposed to last much longer than in the common method of other counties; and it is necessary to make this economical use of the wheat straw, where the wheat that is grown is not sufficient to support the inhabitants.

In some places where *reed* is scarce, it is laid on so very thin as not to admit of being clipped level on the surface, and is then cut in lines across the building at the bottom of every layer of straw, and presents a curious appearance. Reed-thatching is very little in use to the east of Blandford.

A large portion of the cottages have no other than clay floors, and the same material is employed for barn floors in some instances. J. B. Bower, Esq. of Iwerne, in consideration of the increasing scarcity of oak in the Vale of Blackmoor, has floored a barn with stone, by way of experiment, but the thrasher does not think it is so well as planks, to thrash upon.

A scarcity of buildings, particularly cow-houses, is complained of in the Vale of Blackmoor, in consequence of which the pastures are much injured by the feet of the cattle in winter. The number of cottages is not sufficient to accommodate the inhabitants, even now though the war has contributed materially to make labourers scarce.

Mr. Cox has built a large mill at Fifehead Magdalen, for the purpose of swingling and spinning flax, &c. The water-wheel seems to be of a new construction; it consists of rings of cast-iron, fixed on wood, and the water buckets are composed of plate-iron, screwed to the cast-iron rings. There is also a toothed cast-iron wheel, which, instead of being all in one piece, in the common way, consists of segments, extending from one spoke to the next, and screwed on.

Mr. Bridge of Winford Eagle, has a grist and oil-mill,

by which means, of course, oil-cake can be obtained at a cheap rate. The flax-seed is broken first, under the edges of two stones, which revolve round a circular trough, being supported and moved by an horizontal axle, which passes through a vertical shaft. It is then warmed on a stove, and put between the folds of a thick horse-hair cloth, with a back part made of leather, and the oil is pressed out of these *lappers*, by means of the alternate rising and falling of heavy beams, which act on the principle of the wedge.

Mr. Bridge's ox-stalls are worthy of observation: they consist of a row of arches, fourteen in number, each of which is three yards wide, and fitted to receive a pair of oxen.

Price of Building Materials, &c.—At Melbury Osmund, elm 2*s.* 6*d.* a foot.

At Sherborne, bricks and tiles 50*s.* a thousand; stone tiles 30*s.* a ton.

At Beaminster, lime and carriage 2*s.* 2*d.* a hogshead. Flooring stones, from Hinton, in Somersetshire, from 6*d.* to 14*d.* a foot, according to the facing, &c. Oak 5*s.* to 7*s.* a foot. Elm 3*s.* to 6*s.* Masons' and carpenters' work, 3*s.* to 3*s.* 6*d.* a day. Thatching 3*s.* a square. Reed-thatching, one hundred sheaves cost from 20*s.* to 48*s.* The tenants often pay 10 per cent. for money laid out in repairs.

At Winford Eagle, bricks and tiles 42*s.* a thousand. Lime, 2*s.* a hogshead.

At Swyer, thatching 3*s.* 6*d.* a square to workmen; and a square is said to require one hundred of what are called half-sheaves, of 8 or 9lb. each.

At Rampisham lime is made of chalk, and is possessed of the excellent quality of becoming hard under water.

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This lime has the quality of growing (as it is termed) under the water, by which is meant, that it seems to increase at the joints, and spread further than it was laid on. It is very probable, that the chalk of which this is made, contains a mixture of the earth called magnesia.

Bridges.—The most remarkable are probably those on the river Stour, two of which were nearly demolished by the sudden swells of that river, in April, 1809.

Great Canford bridge is in the course of being rebuilt, and the rebuilding or repairing of the bridge at Blandford, which is much injured, is in agitation.

CHAP. IV.

OCCUPATION.

SECT. I.—SIZE OF FARMS.

IN many parts of Dorsetshire, Mr. Claridge observes, one man occupies a whole hamlet, parish, or lordship, perhaps from one thousand, or fifteen hundred, to two thousand acres, which has been too frequently made, by laying five or six farms together. It is contended, that if the same quantity of land were to constitute ten or twelve little farms, the profits arising from the labour and industry of the small farmers, would be such as to enable them to bring up their families with comfort: the industry taught them in early youth would never fail to make them the best of servants and artificers, and the most orderly members of society. The labour in agriculture, in these cases, is done by the farmer and his own family; every minute article of produce is carefully attended to, which fills the markets with provisions of all kinds, and that constant attendance upon the little market, promotes an intercourse between commerce and agriculture, that is a mutual advantage to both. It is not meant to assert that advantages, both of a public and private nature, are not sometimes obtained by consolidating two or three farms together, or that there ought not to be farms of nearly all sizes; but the most accurate and extensive observations seem to prove, that the destruction of the small leasehold system, and the substitution

stitution of farms of one or two thousand acres, has not always proved advantageous to the interests of the county of Dorset. And though it may be asserted, with some reason, that if sheep farms were made very small, the profits arising from them would be very trivial; yet no objections of any weight could be brought against dairy farms, however small they might be.

Were the sheep farms to remain even of their present extent, it does not follow that a dairy of one hundred cows ought to be attached to them, forming a branch of business which the farmer has not leisure to superintend. The land which supports one hundred cows, would form a material addition to the comforts of ten families, and take away none of the real happiness of the present possessors.

SECT. II.—PROPRIETORS AND FARMERS.

AMONG the landed proprietors of this county, who distinguish themselves by the personal attention they have bestowed on the cultivation of the soil, the following may, in particular, be enumerated:—Mr. Portman, who has a large farm in hand at Bryanstone; Mr. Wood, of Osmington, who cultivates his own estate; and Mr. Farquaharson, who keeps a Spanish and Anglo-Merino flock, &c. at Tarrant Gunville.

Several others of the principal gentry keep large portions of land, under the management of bailiffs, in the vicinity of their country seats.

Among the gentlemen who manage their own freehold or leasehold estates, with particular attention, may be mentioned Mr. Cox, of Fifehead Magdalen; Mr. Rd. Bridge,

Bridge, of Langton Farm, near Beaminster; Mr. Cox, of Beaminster; Mr. Conway, of Netherbury; Mr. Pittfield, of Symondsbury; Mr. Bishop, of Cheddington; Mr. Henning, of Weymouth; Mr. Henning, of Dorchester; Mr. Billet, of Wormwell; and the Rev. Mr. Dampier, of Langton Matravers.

Spanish sheep have been introduced by Mr. Farquharson; Mr. Bowker, of Charborough; and the Rev. Mr. Dampier; and the merits of this breed of sheep will probably undergo a fair trial in a few years.

Mr. Bridge, of Kimmeridge, is supposed by some to have as good a flock of the Dorset kind as any in the county; and, among other advocates of this breed, may be mentioned Mr. Portman, Mr. Wood, Mr. Henning, of Frome Farm, near Dorchester, and His Grace the Duke of Bedford's tenants, at Swyre and Kingston Russel.

The Southdown sheep have found advocates in Mr. Goodenough, of Frampton, Mr. Banger, of Waterson, Mr. Shaw, of Spettisbury, and many others, who have spared no expense in procuring some of the best of their kind.

The Dean of Salisbury has made some trials of the drill husbandry, and has cultivated various kinds of cattle-crops at St. Giles's; and Mr. J. Bridge, of Winford Eagle, who remains neutral in the controversy between the Dorset and Southdown breeders, is believed to have tried more experiments in agriculture than any other gentleman in the county.

Mr. Ilott, of Milton Abbey, is an advocate of paring and burning, and the drill husbandry; Mr. Wolstenholme drills turnips in the Scotch mode, at Bexington; and Mr. Cox has made an extensive trial of the merits of irrigating clay soils, on his estate at Fifehead Magdalen.

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In the mention that has been made of some of the leading agricultural characters, it is not to be inferred that there are not many others of equal merit to be found in the county.

SECT. III.—RENT.

THE average rent of the land, in the different districts in this county, is of course very different. As the enclosures round the heaths and wastes in the southern district, have, in the last half century, increased to a considerable degree, and are rapidly increasing, by means of bills of enclosure constantly passing in Parliament, many of these lands are brought into cultivation. Others that are of the poorer sort, are principally planted with forest trees, or are designed for planting. The soil of such parts is mostly sand, or sand and white gravel, with very little staple, and very distant from any means of substantial improvement. The average value of such lands cannot be rated higher than ten or twelve shillings per acre. Other lands, with a substratum of chalk, but further removed from the common heaths, and very ancient enclosures, may be considered to average from 18s. to 24s. per acre. Those in the Vale of Blackmoor, which is for the most part pasture and meadow, may be estimated to average from 30s. to 60s. an acre.

In the western part of the county, the average rent is about 30s. per acre; the arable land is about 20s. per acre.

The average rent of the bottom lands, from Eggerdon-Hill, and including Marshwood Vale, is 40s. per customary acre, beside the tithes.

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The rents in Purbeck vary from 15*s.* to 20*s.* an acre, with 4*s.* tithes, and 5*s.* poor's rates.

About Wareham, water-meadows are from 2*l.* to 3*l.* an acre; dry meadows, 20*s.* to 30*s.*; arable land, 15*s.* to 30*s.*; and downs from 5*s.* to 10*s.* an acre.

At Frampton, the rent is about 18*s.* an acre on the average; and half the parish is down land.

The downs, near Up-Cerne, let for about 10*s.*; the arable at 20*s.*; and the meadows, &c. at 30*s.* per acre.

The farms in the neighbourhood of Beaminster, are let from 1*l.* to 3*l.* per acre; and one of fifteen hundred acres, in the east of the county, is let at 25*s.* per acre.

At Chettle, the rent is from 30*s.* to 40*s.* an acre.

Bexington farm, of one thousand acres, is about 10*s.* per acre, and the tithe 60*l.*

At Powerstock, the arable and pasture is from 25 to 30*s.* per acre.

The average rent, at Wootton Fitzpaine, is about 20*s.* an acre.

The rent of cottages, at Melbury Osmund, is about two guineas and an half per annum, and nearly the same at Sherborne.

At Beaminster and Wareham, cottages are rented at 40*s.* per annum.

It is impossible to collect such a number and variety of well authenticated particulars respecting the rent of any large district, as to give a fair average of its rent;—besides, there are other circumstances to be taken into consideration besides the mere rent, especially the *time* at which that rent was fixed.—The following general conclusions, however, respecting the rent of farms in Dorsetshire, may be relied upon, and are of no little importance and utility in investigating and estimating the agricultural

agricultural character of this county, when compared with other districts of the kingdom.

In the first place, a great rise of rent has taken place on lands of all descriptions, whether pasture or arable; and this rise seems gradually increasing.

In the second place, this rise of rent has taken place in Dorsetshire at a later period than in many other parts of the kingdom. It would be a curious subject of enquiry, to trace the rise of rent, which has undoubtedly, to a very considerable degree, taken place throughout the united kingdom: to point out the districts in which it first occurred, the causes peculiar to those districts which made it first occur there; and to point out those districts in which it did not make its appearance till much later; and the causes which kept the rent of land so long stationary in these districts.—In this investigation it would probably be found, that in the South and East of Scotland, and in the North of England, rents rose first, and have risen to their greatest height; so high above their proper level, that they are now sinking; and that, in the West of England, in that part of the kingdom most favoured in point of climate, and not inferior in point of soil, rents were longest in rising, and have as yet scarcely reached their level.

In the third place, with respect to Dorsetshire, clay land has risen more than soil of a different description;—the rise may be stated at nearly treble within fifteen or twenty years: the principal cause is the application of chalk to clay soils.

SECT. IV.—TITHE.

THIS county appears to be more generally subject to tithes, than is the case in most other parts of England.

The only parishes that are tithe free, it is believed, are Broad Mayne, Charlton Marshall, Durweston, Frampton, Kimmeridge, Milton Abbas, Minterne-Magna, Nether Cerne, Steepleton, Tarrant Launceston, Tarrant Monkton, Whitechurch, and Weymouth.

The following parishes are titheable in part :

East Chaldon, East Lulworth, Hermitage, and Spettisbury. Combe Keynes and Dalwood are subject to small tithes ; a thousand acres are titheable at East Morden ; as is one-fourth of East Orchard. One farm is tithe-free at Kingston, near Corfe ; and two-thirds of Kingston, near Poole, are titheable. Melbury Sampford is titheable, except the park.

The average amount of tithes, on the arable pasture and meadow land, may be estimated at 3*s.* 6*d.* an acre ; that of commons at 8*d.* ; open downs at 4*d.* ; and heaths at one penny per acre.

In the Original Report, written in 1793, Mr. Claridge observes, " Tithes are taken by composition, at about 3*s.* in the pound ; but if set by the crop, the following proportions are usually taken, viz. for wheat, 7*s.* per acre ; lent grain, 5*s.* ; potatoes, 4*s.* ; water-meadow, 3*s.* ; dry meadow, 2*s.* 6*d.* ; clover, 2*s.* 6*d.* ; orchards, besides hay, 6*s.* ; lambs, 8*s.* for every tenth ; and cows, 8*s.* to 12*s.*"

The county of Dorset is remarkable for the great numbers of parishes in which a very low modus has been long established, in lieu of the vicarial tithes.

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The great tithes of many parishes are in lay hands, and the composition is frequently 5*s.* or 6*s.* in the pound rent.

The composition at Symondsbury is 8*s.* per acre for the arable land, and a modus of 8*d.* each for cows. Where there is no modus, the common tithe paid for a cow is 15*s.* The composition in many places, for the arable land, is 14*s.* for an acre of wheat; and 8*s.* per acre for barley and oats.

At Netherbury, a modus has been recovered by a law-suit; the terms are, 1*s.* a hogshead for cyder; 6*d.* a cow; 6*d.* a sheep; 2*d.* for dry sheep; 1*s.* an acre for all old meadows. The tithes here had been paid by composition for fifty years.

The modus at Wormwell is 2½*d.* for a cow; 6*d.* for a calf; and if the calf is killed in the house, the Clergyman has the left shoulder. Full tithes are payable for sheep, &c.

Kingston Russel is tithe-free.

The tithes at Great Canford are 7*s.* or 8*s.* in the pound; —the Clergyman had an allotment in the heath, which is lately enclosed; but the rest of the parish is divided into three tithings, two of which belong to Mr. Bankes, and one to the Clergyman, who takes each tithing successively every three years.

At Morden, the tithes are 6*s.* an acre for the arable, and 1½*d.* each for cows.

The modus at Sturminster raises 78*l.* 14*s.* 8½*d.* to the Vicar, beside the glebe; and the Rector is paid 7*s.* an acre for the arable land. At Shaftesbury the tithe is from 7*s.* to 12*s.* per acre. Mr. Spear, whose farm is partly in Cranborne, says the tithes in that parish are 4*s.* an acre, or 5*s.* 6*d.* in the pound.

The arable land is tithe-free at Spettisbury.

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At Stinsford the tithes are 12*s.* per acre on corn, and the small tithes 2*s.* or about 7*s.* per acre on the average.

At Mapperton, they are 4*s.* in the pound, or 5*s.* an acre.

At Cheddington, 5*s.* in the pound, and a modus, of 2*d.* a cow.

At Melbury Osmond, 3*s.* in the pound.

At Sherborne, great tithes 6*s.* an acre.

At Thornford, 5*s.* in the pound.

At Ryme, tithes taken in kind, except cows, which are compounded for at 16*s.* each.

Mr. Daw, near Evershot, pays 3*s.* 6*d.* in the pound; but, on a neighbouring farm, where cows are not titheable, only 2*s.* in the pound is paid.

At Beaminster, there is a modus of 1*s.* a cow; 1*s.* an acre of meadow; and 1*s.* a hogshead for cyder, just established by a suit; wool and lambs are titheable in kind.

At Corfe Castle, the vicarial and rectorial tithes amount to 4*s.* in the pound, and they are nearly similar in the rest of Purbeck.

At Litton, the modus was 1*s.* for a milch cow, which composition was called a *cow-white*; 4*d.* is paid for a heifer; and 1*s.* for a hogshead of cyder: every thing beside is titheable in kind.

At Osmington and Winford Eagle, there are none but vicarial tithes; the rest, at least at Winford, belong to the landlord, and such is the case at Cerne Abbas, and probably many other places.

Tithes are taken in kind in the Isle of Portland.

Mr. Cox, of Fifehead Magdalen, speaking of the tithes of grass land, observes, that the best land brings the least profit to the tithe owner; for if a beast be fattened on an acre of rich land, there is only an agistment tithe

tithe to pay, for 3*s.* 6*d.* or 4*s.* per week, which, in twenty weeks, brings the Clergyman only about 7*s.* an acre. If the same land were stocked with dairy cows, one to an acre, at 13*l.* each, the tithe would be 27*s.*; and the tithe of hay, on another acre, which would produce a ton and a half, at 4*l.* per ton, would be 12*s.* making the average nearly 1*l.* per acre. Feeding land is thus obviously less advantageous to the tithe-owner, than such as is adapted only to the purposes of the dairy.

SECT. V.—POOR'S RATES.

THE following particulars respecting the poor, are taken from "An Abstract of the Answers and Returns made pursuant to an Act passed in the forty-third Year of His Majesty King George the Third, intituled, 'An Act for procuring Returns relative to the Expense and Maintenance of the Poor in England:' Ordered by the House of Commons to be printed, 10th July, 1804."

In Poxwell parish, in Winfrith hundred, no regular account is kept of the expense of the poor: the whole parish is occupied by one individual, who employs all the poor, and allows to each one peck of wheat per week, at the rate of 5*s.* per bushel.

The money raised by the poor's rates, and other rate or rates, within the year ending Easter, 1803, and the rate in the pound for the different divisions of the county of Dorset, are as follow:

Division of *Blandford*, 10,550*l.* 5*s.* 6*d.*; at the rate of 4*s.* 8½*d.* in the pound.

Division of *Bridport*, 11,295*l.* 13*s.* 0½*d.*; at the rate of 3*s.* 4½*d.* per pound.

Division of *Dorchester*, 7863*l.* 10*s.* 8½*d.*; at the rate of 2*s.* 8½*d.* per pound.

Division of *Sboston*, 19,185*l.* 18*s.* 9*d.*; at the rate of 4*s.* 10½*d.* per pound.

Division of *Sherborne*, 14,045*l.* 18*s.* 2½*d.*; at the rate of 3*s.* 1*d.* per pound.

Town of *Blandford Forum*, 2546*l.* 12*s.* 6*d.*; at the rate of 7*s.* for houses and trade; and 10*s.* 0½*d.* for lands.

Town of *Bridport*, 1568*l.* 13*s.* 3½*d.*; at the rate of 16*s.* 5*d.* per pound.

Town of *Corfe Castle*, 1364*l.* 14*s.* 4½*d.*; at the rate of 1*s.* in the pound.

Town of *Dorchester*, 1554*l.* 16*s.* 7¼*d.*; at the rate of 5*s.* 1*d.* per pound.

Town of *Lyme Regis*, 826*l.* 7*s.* 7½*d.*;—the houses are rated at one-half the sum per pound at which lands are rated.

Town and County of *Poole*, 3115*l.*; at the rate of 7*s.* 11*d.* in the pound.

Town of *Shaftesbury*, 1998*l.* 2*s.* 0¼*d.*; at the rate of 7*s.* 1¼*d.* in the pound.

Towns of *Weymouth* and *Melcombe Regis*, 1401*l.* 14*s.* 11½*d.*; at the rate of 9*d.* in the pound.

The total money raised in the county of Dorset, by the poor's rate, within the year, ending Easter, 1803, was 78,357*l.* 12*s.* 4½*d.*

The medium average of money annually raised by assessment, in the years ending Easter, 1783, 1784, 1785, amounted to 34,620*l.* 4*s.* 8*d.*

The money raised by assessment, in the year ending Easter 1776, amounted to 27,415*l.* 5*s.* 1*d.*

The average of the county, in 1803, was at the rate of 4*s.* 2¼*d.* per pound.

The money expended out of any house of industry, or workhouse, in 1803, was 52,285*l.* 1*s.* 11*d.*

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The money expended *in* any house of industry, or workhouse, was 12,486*l.* 16*s.* 1½*d.*

The expenditure in suits of law ; removal of paupers ; and expenses of overseers and other officers, amounted to 2209*l.* 7*s.*

The amount of the whole expenditure, on account of the poor, in 1803, was 66,981*l.* 5*s.* 0½*d.*

Medium average of the annual expenditure, on account of the poor, in the years ending Easter, 1783, 1784, 1785, 31,528*l.* 8*s.* 6*d.*

Annual expenditure, on account of the poor, in the year ending Easter, 1776, 24,518*l.* 2*s.* 2*d.*

Expenditure for any other purposes ;—church rate, county rate, highway, militia, &c.—in 1803, 11,028*l.* 6*s.* 0¼*d.*

Total expenditure within the year ending Easter, 1803, 78,009*l.* 11*s.* 1¼*d.*

Money expended in purchasing materials for employing the poor, *out* of any house of industry, or workhouse, 23*l.* 19*s.* 7½*d.*

Money so expended, *in* any house of industry, or workhouse, 120*l.* 2*s.* 3*d.*

Money earned by the labour of the poor towards their maintenance, *out* of any house of industry, or workhouse, and accounted for to the parish or place, 465*l.* 2*s.*

Money so earned *in* any house of industry, or workhouse, 1008*l.* 13*s.* 11¼*d.*

Number of persons relieved from the poor's rate permanently, *out* of any house of industry, or workhouse, not including their children, 5734.

Number of persons so relieved, *in* any house of industry, or workhouse, including their children, 930.

Number of children of persons relieved permanently *out* of the house ; and of any other children maintained *out* of the house, *under* five years of age, 1694.

Number of children so relieved, from five to fourteen years of age, 2935.

Number of persons relieved occasionally, 4490.

Number of persons above sixty years of age, or disabled from labour by permanent illness, or other infirmity, 3179.

Number of persons relieved, not being parishioners, 3843.

Number of friendly societies, who held their usual meetings within each place or parish, 37.

Number of members in the said societies, 3795.

Number of children in schools of industry, 409.

The expense incurred, on an average, by the relief of each parishioner, *out* of any workhouse, amounted to 9*l.* 9*s.* 10½*d.*

The average expense for those maintained in workhouses, was 13*l.* 8*s.* 6½*d.*

The resident population of the county of Dorset, in 1801, appears, by the Population Abstract, to have been 115,319; so that the number of the parishioners relieved from the poor's rate, was 14 in the 100.

The number of persons belonging to friendly societies, 3 in the 100.

The amount of the total money raised by rates, appears to average at 13*s.* 7*d.* per head on the resident population.

The amount of the whole expenditure, on account of the poor, appears to average at 11*s.* 7½*d.* per head.

It may be necessary to observe, (Mr. Boswell remarks), that the land tax, ever since the 4th of William and Mary, 1692, has continued in the form it now stands, more than half the time at 4*s.* in the pound, sometimes at 3*s.*; sometimes at 2*s.*; and in the years 1732 and 1733, at 1*s.*, but without any total intermission; the medium has

has been 3*s.* 4*d.* in the pound. The present rate is at 4*s.*, and is collected on tithings *eo nomine*, and a certain number of those tithings make a division, though there are places denominated tithings that make part of, and pay with other tithings, within the hundred, or liberty, and division; and there are others that are part of, and pay into parishes which do not belong to the hundred, liberty, and division, and which, from immemorial custom, or other unsearchable reasons, were never separately collected and altered.

The general county rate, since the passing of the Act 12th George II. 1748, is collected on parishes, chapelries, vills, hamlets, and extra parochial places, *eo nomine*, and is paid out of the poor's rate. The whole expenditure of the money raised by the county, may be divided into two kinds, *ordinary and extraordinary*: 1st, The ordinary expenses may be further subdivided into *ancient and modern*. The *ancient* are those before the Act passed in the year 1740, and nearly amounted to two rates, or 1000*l.* per annum. The *modern* are those imposed by Parliament since that statute, and have increased in proportion as they commenced at the different periods. 2d, The *extraordinary* expenses may also be subdivided into *special and common*. The *special* are for building of bridges, shire-halls, gaols, and houses of correction; and to these may be added others, which are contingent or casual. The *common* contain all the other various articles, including the salaries of officers, which are constant or annual. The number of rates collected since the year 1740, one year with another, has been 2 and $\frac{1}{8}$ parts, which is equal to 1133*l.* 18*s.* 5½*d.*; but of late years, by the extraordinary expenses, the medium has considerably increased; though, according to the land-rate (which is said to be at 4*s.* in the pound, but is, in

fact, upon an average throughout the county, little more than half that sum), one year's taxation of the money so raised, is equal to sixty-five county rates and a half, at 500*l.* each; consequently if five rates per annum were raised, it will be upwards of thirteen years before it will be equal to the present land-rate of one year.

The annual produce of charitable donations in land and money, according to the returns made to Parliament in the years 1786, is 4861*l.* 5*s.* 8*d.*; according to the Table given by Mr. Boswell, it amounts to 3847*l.* 13*s.* 3½*d.*; making a difference of 1013*l.* 12*s.* 4½*d.* This difference, Mr. Boswell supposes, arises from some of the charities extending into several parishes, and the annual produce of the charity being put down in the aggregate to each parish, when only part thereof goes to a parish, or the whole benefit arises to each in succession.

SECT. VI.—LEASES.

LEASES of twenty-one years duration were common in this county, till near the end of the last century; but proprietors in general think it now improper to put the management of their estates out of their own power for so long a period; and though at present it is supposed, that about one half of the county is under lease, yet its duration is mostly for the term of only seven years, and in many very recent cases, the leases have been limited, even to three years.

No circumstance threatens agriculture with more fatal consequences than the unwillingness, on the part of the landlords, to let their farms for long leases; that is, for leases, at least of fourteen or twenty-one years; at the same

same time, the landlords have a sufficient reason to allege in defence of the practice they are now adopting, of abridging the length of the leases they grant. The value of money, from whatever cause or causes, has declined so much within these last twenty years, that a landlord would scarcely be justified, either to himself, or to his family, who did not avoid taking a measure which should reduce, instead of raising his income. It is therefore a subject of regret, though not of blame in respect to the landlords, that they are not now so much disposed as formerly to let their land on long leases.

There are many nominal leases, however, for 10, 12, 15, and 20 years, voidable at the will of either party at 4, 5, or 7 years.

Henry Banks, Esq. of Kingston, near Wimborne, gives leases of 21 years, determinable by either party at the end of every 7 years. The leases are made voidable for no other reason than to enable the proprietor to eject an obstinate disagreeable tenant, or a bad farmer; as in all other cases, Mr. Banks wishes, that tenants may remain not only to the end of their lease, but to the end of their lives; and the lease affords a security that the rent will not be altered till the 21 years are expired.

About Wareham, leases are from 7 to 12 years; but the custom of granting them has been much checked by the great advance in rents, &c.

The tenants of Mr. Wood of Osmington, and others in the vicinity, are permitted to carry hay and straw to Weymouth, &c. under the condition of bringing back a waggon load of manure.

It was common in the old leases, to restrict the tenants from growing hemp or flax, but in the modern short leases, such restrictions are generally omitted, in that part of the county where such crops are commonly grown.

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Some are of opinion, that it is wrong to forbid the growth of hemp, because, such is the nature of this plant, that the farmers must procure so much manure for the growth of it, as will improve the land, or the culture of it will prove unprofitable. It seems to be on this principle, that, in some old leases the growth of flax was forbidden, but no mention made of hemp.

Mr. Drew, of Wootton Fitzpaine, gives leases of 14 years, in which the tenants are forbid to sow more than two corn crops together, unless the third is manured, or limed after the rate of fifteen hogsheads per acre.

W. Morton Pitt, Esq. gives leases of twelve years, stipulating that the tenants shall not take more than two corn crops in succession.

The leases granted by R. E. D. Grosvenor, Esq. of Charborough, as late as the year 1805, contained restrictions from sowing more than two corn crops in succession; the corn crops were not to be both of the same kind, and grasses of some sort were to be sown with the last crop. Some leases which are not expired, in various parts of the county, are of the same kind as the above, and in others, the cropping is only regulated by the general rule not to sow more than two corn crops in four years. Indeed, till very lately, the permission to sow two corn crops successively, and these both of the white strawed kind, seems to have been general all over the county; and some of the tenantry have adopted the modern five-shift system, when their leases give them permission to grow more corn crops.

The following observations by Mr. Wickins, on the subject of leases, though many will differ with him in opinion regarding some points, yet merit particular attention.

“ The ancient leases, like the ancient systems of Agriculture,
culture,

culture, have undergone considerable improvement. The term of years is greatly shortened, for various reasons. Formerly, farms were pretty generally granted for twenty-one years, but this term occupying the probable duration of the grantor's life, left him little chance of seeing his revenues increase, or of getting rid of a bad tenant, or a bad neighbour; it was also out of the proprietor's power to enforce evident improvements, or controul the obstinacy of an ignorant, and wrong-headed farmer. It may be said, indeed it has often been suggested, that under short leases tenants cannot afford, and will not improve their farms; but experience has taught the contrary doctrine to be true. Few landlords, I am persuaded, are to be found, that will not liberally encourage a good farmer, tenant, and neighbour. No gentleman turns out a tenant who improves his estate; and I cannot believe, that any landlord can be so grasping or covetous, as to require more rent than a good tenant can afford to pay, and live with comfort.

“ When a tenant dies before the end of his lease, gentlemen never refuse permission for the widow, &c. to make a due advantage of the unexpired part of the term, by giving up their right, by agreement, to such a tenant as meets the landlord's approbation. But the practice of selling leases by auction, ought on no account to be suffered, as by this means, disagreeable tenants or neighbours might be introduced.

“ Arable farms are mostly entered upon at Old Michaelmas, the incoming tenant paying for the tillage of the fallow, the carriage of manure, &c. but the pastures belonging to the farm are generally entered upon (without payment), at the preceding Lady-day. In this case, the incoming tenant has the crop of hay, and the present occupier has the *after shear*.

“ As

“ As the farmer goes out as he came in, it makes no difference in his interests; and the tenants generally prefer this method of entrance. The incoming tenant generally sows his own grass-seeds among the lent crop. Formerly this obligation used to lie upon the last occupier, who has often sown such seeds as would not grow, or even baked them in an oven, with a view of injuring his successor. The tenant who is leaving the farm is allowed to keep cattle in the yards to eat straw, &c. till Lady-day, or after. Sometimes the incoming tenant is allowed to have half the chaff for the use of his horses, while tilling the fallows.

“ The farmers have mostly half a year's rent in hand.”

Mr. Fox, of Beaminster, (who is agent for some considerable estates), says, the repairs of the buildings are mostly done by the proprietors, and the gates and fences by the tenants. He deems it a pernicious plan to covenant for the tenants to keep the buildings in repair, as they always perform this irksome duty in a clumsy and inefficient manner, and cannot be made to do otherwise, unless by ruinous prosecutions. Farms in this part of the county are entered upon at Old Lady Day, and Mr. Fox says, many are let by auction, and by secret tender. The following are the usual covenants in leases: Time, from seven to ten years.—Hedges not to be cut at a less age than seven years, and not at all in the last year of the term.—Farm not be underlet, unless with the consent of the landlord.—Tenant to find reed for thatching, being repaid the expense of drawing it.—Not to sell hay or straw, unless *reed*, which is permitted to be sold.—Penalty of 10*l.* per acre for breaking up old pastures.—Penalty from 10*l.* to 20*l.* per acre for sowing hemp or flax.—Tillage or mode of cropping, the modern five-shift course.—

Landlord

Landlord does the repairs, and finds rough timber for gates and bars, and in some instances for waggons, &c.

Tenants pay 1% per cent. for money laid out in cottages attached to farms (the charge was formerly 8 per cent.) —The tenants generally have half a year's rent in hand; and the attornies charge for drawing up leases, in proportion to the size of the farm.

Rents have in general been doubled within the last twenty-five years, and the great alteration in the value of money, has been the principal check to the practice of granting long leases, formerly so prevalent in this county.

It seems a ruinous practice, to entrust the repairs to the care of the tenant; when wood, in the rough, is allowed to the tenants in such cases, they are apt to make use of it for other purposes.

Mr. Portman does not think it just to take hasty advantage of expensive improvements, nor to exact the greatest rent that could be obtained. He believes, that leases in general, are of very little use; and lets his estates under the regulation of written agreements only.

The Earl of Shaftesbury's tenants, whether they occupy much or little, are never turned out of their farms, for the purpose of laying them together; and, consequently, though they have no leases, they are as secure in their possessions, if not more so, than such as have.

Mr. Park, who is the land steward, says, the Earl of Shaftesbury's estates have been raised about 50 per cent. in the last twenty years, on the supposition that wheat has had a permanent advance in price, from 6s. to 9s. a bushel. He is of opinion that tenants, who have reason to confide in the liberality of their landlords, will improve

prove an estate equally as well without a lease as with one. Besides, there never was a lease that was not broken in some of its covenants, and leases of five or seven years are, in every point of view, so useless, that they would, in all probability, be refused if offered to the Earl of Shaftesbury's tenants. Mr. Park thinks it just that the tenants should pay half the expense of the workmanship in repairs, merely to give them an interest in attending to the workmen.

With respect to letting farms, he says, there are none of the principal land owners who have adopted that mean modern plan of *secret tenders and public auctions*, which by raising the rent excessively in the first instance, will ruin the land in the end.

At the last letting of the estates of the Earl Digby, the following conditions were agreed upon between the landlord and tenants :

1. The term to be eight years.
2. An additional rent of 50*l.* per acre for meadow or pasture, broken up without leave.
3. A further rent of 10*l.* for every acre of land that shall be underlet, or sowed with hemp, flax, mustard, wood, or teasles, or sown for two years together with the same kind of corn or grain, or for more than two years with any sort of corn or grain, and not fallowed, or sown with turnips, vetches, or grass-seeds, to remain for one whole year, without licence to the contrary.
4. The tenant to be subject, to all rates, taxes, and outgoing whatsoever, except the land-tax, and the landlord's proportion of the property tax.
5. To consume all the manure, &c. on the estate, except that arising from the last crop, which is to be left on the bottom for the benefit of the succeeding tenant.

6. To

6. To keep the gates, posts, bars, and stiles, belonging to the estate, in good repair, being allowed rough timber.

7. To preserve all timber, and other trees, and saplings, and not lop or shroud any pollard without leave.

8. To keep the glass in the windows in good repair, as well as the pump.

9. To find *reed* for thatching the buildings, and to pay half the workmen's wages for laying it on, as well as half the wages in other repairs done to the buildings.

10. To hollow-drain all the wet and springy parts of the lands, being allowed half the expense of wages, and provided with stone.

11. To carry stone for draining, and all other materials used on the farm, gratis.

12. To preserve all new planted fences and apple trees, being allowed writh for the first fence.

13. To permit the landlord, upon 12 months notice, to take any lands into his possession for the purpose of planting, on an allowance per acre, of the sum the same was charged at in the valuation of the farm, and a further allowance, to be estimated by two indifferent persons, if any particular permanent improvements have been made thereon.

14. To plough and prepare, in a husband-like manner, in the last year of the term, one fourth or fifth part of the arable land for a summer-fallow, being allowed for the doing thereof by the incoming tenant, according to the valuation of two indifferent persons in case of dispute.

15. Not to carry on the arable lands any hay, or compost arising from hay made on the pastures, without purchasing, and bringing on the pastures as much other manure as an equivalent.

16. To

16. To sell to the incoming tenant, at an appraisement of two indifferent persons, all the hay remaining on the estate at the end of the term.

17. Not to commit any waste on the farm, but at all times to cultivate and manage it, according to a course of good and approved husbandry.

18. To forbid all persons from sporting on the estate, and bring actions for trespass, being indemnified from expenses.

19. To abide by such orders and regulations as shall be made by the landlord or his agent, for the reparation of private roads passing by or through the estate, or pay what shall be necessarily expended about such reparation.

20. To permit the landlord, or incoming tenant, to sow grass-seeds on all the lands sown with lent corn, in the last year of the term, to be harrowed in, gratis. The incoming tenant to enter on all the remaining arable lands, as they shall be cleared of the crops.

21. The landlord to keep the buildings in repair (the tenant paying part of the wages, &c. as before mentioned), and to permit the tenant to keep possession of the barns to thrash out the last crops.

22. The landlord to permit the tenant to sell the last year's hay, if the incoming tenant does not take it, upon depositing upon the farm two loads of rotten dung of the weight of 25 cwt., or one load of soap-ashes of 40 cwt. in lieu of every waggon-load of hay.

23. The term to be void, if the rent be behind twenty-one days, and nothing found whereon to distrain; or if any part be underlet, or if the tenant become bankrupt, or insolvent, or the term be liable to be seized under any extent or process.

On

On some of these, Mr. Bachelor makes the following observations :

Condition 5.—It appears formerly to have been a general custom, for the outgoing tenant to sell the manure, as well as the straw and the chaff. At present, the tenant's right in the two latter articles is sometimes disputed, and the manure is commonly supposed to belong to the farm.

Perhaps no one will be found to deny the propriety of retaining the manure for the use of the farm that produced it; yet this manure has in many instances, become the property of the farm, without having been purchased; and though no injury is thus sustained by those who continue for many years in the same farm, this is not the case among the inferior tenantry, who are removed without much ceremony.

The straw and chaff, as consumed by cattle in the winter, were formerly considered to pay for the thrashing of the crop; it is therefore a manifest injustice to deprive a tenant of the right to these articles, on any pretence.

Condition 7.—The land agents of Dorsetshire very properly contend, that a tenant should never be permitted to lop any timber trees; yet they appear in general to allow, that when trees are felled, &c. it is but fair, that the occupier should have the lop, tops, and roots, in consideration of his care in preserving them, and the injury they do to the corn and the fences in their vicinity.

It is to be regretted, that this rule is not invariably acted upon, or that such claims are not expressly made in the agreements. The revenue which could arise to the proprietors from such a source is too trivial to be mentioned, and is only just of sufficient importance to be made a vexatious instrument of power by inferior agents.

Condition 9. The agreement for a tenant to pay half the workmen's wages in all repairs, appears to be dictated by the soundest policy, as it places the landlord and tenant in a kind of amicable partnership, conducive to the interest of both.

On the other hand, the practice of throwing the whole of this expense upon a tenant, which seems to be on the increase, appears to me likely to prove a fruitful subject of future contention.

Some of the tenants may, with strict propriety, make the assertion, that the buildings are not in worse repair than was the case at their entrance on the farm. Others will go to work, with no small reluctance, to fit up the buildings for an incoming tenant. And there will not be wanting those who ought to have expended 10% on the repairs, and who actually have expended 50% in claying, chalking, draining, &c. the benefits of which they or their family expected to enjoy; such tenants would probably be inclined to think they had obtained no great favour, in the permission to depart without making good their agreement.

The 10th *Condition* shows a liberal consideration for the interests of the tenantry, which deserves the more notice, on account of the numerous agreements, and leases of endless length, in which nothing is omitted but this single article, which is of as much importance as all the rest. Yet this relates only to the single article of drainage, and might have been much improved by the promise to allow all the workmen's wages for such drains as were made in the last three years of the term, if the tenant did not then retake the farm.

The 13th *Condition* approaches very nearly to a general acknowledgment of every claim that a tenant can make. The landlord will pay for all improvements, if he only takes

takes away a single field from a tenant;—how much more, therefore, ought the tenant's rights to be guarded, if he is obliged to leave the whole farm.

I know not what plea could be set up against the insertion of such a clause, unless it were said that the proprietor was desirous his estate should be improved at the *beginning*, but not at the *end* of the lease.

In extenuation of this general neglect, of inserting clauses to secure the rights of outgoing tenants, it will be said; that the great landed proprietors seldom show any inclination to change their tenantry. But, in my opinion, this excuse is of no avail: for if a landlord does not change his farmers, such claims can do him no injury; as they will of course lie dormant as long as that system is adhered to. Misfortunes are, however, unavoidable; and death is the lot of all men;—such being the case, it is certainly not very generous to add to the misfortunes of a widow, or an orphan family, by retaining a part of what all the world will believe to be their just rights.

The *15th Condition* of Lord Digby's agreement is deserving of note, because it claims no more pasture, on the part of the pasture, than it contributed to make; while it would appear, from many agreements of this kind, as if the green land could never be manured sufficiently.

The farmers perhaps act too much on the other side of the question, in many instances; but were they not to learn rather that way, it is likely that England would soon be visited with all the horrors of a famine.

Condition Eighteenth.—Game are often very injurious to the farmers; but it is certainly very natural that gentlemen should wish to reserve them for their own use; as also fish, where there are any fish-ponds of consequence;

but where there are no fish in any ponds, unless the tenant puts them in, it does not seem to comport exactly with the principles of justice, that he should not have opportunity to take them out again.

Conditions 22d and 23d.—If a landlord designs to confer a real benefit on a tenant, by granting a lease, the claim to re-entry ought scarcely ever to be made, unless in case of the rent being unpaid, or land pared and burned, or sward broken up without leave. Little irregularities in husbandry, and breaches of trivial covenants, ought not even to be punished by heavy fines, much less by a forfeiture of the lease; for this would be a sufficient proof that such a lease was utterly futile, and of no value. It is proper that no tenant should sell hay or straw, without purchasing manure in return; but to make them liable to penalties and forfeiture of the lease, if every individual load of hay sold off the farm be not followed by a correspondent purchase of manure in the same half year, seems to me beyond all moderation. At this rate, a man might purchase a hundred tons of hay, and yet forfeit his lease by selling a single load. The objections made to a tenant's underletting any part of a farm, are very proper, yet the breach of this covenant might be punished sufficiently without a forfeiture of the lease; neither need the claim extend to the fractional parts of an acre, for, by this means, a man might be ejected from his farm, for letting the corner of a field to a labourer, for a potatoe garden.

It is not thought proper in general, to sow successive white straw crops, yet it may sometimes prove inconvenient to do otherwise on some small plot of ground, and the penalty of 10*l.* an acre, or a forfeiture of a lease on such an account, would not tend to increase the confidence of tenants in the generosity of landlords.

The

The same may be said of a covenant not to sow more than one-fourth or one-fifth of the arable land with the same sort of grain, for this article, I apprehend, is infringed at least every second year, by almost every farmer in England, and must always be so, unless he sows his fields with more than one sort of grain.

It does not act in preventing the growth of an improper quantity of wheat, because the entire substitution of barley instead of wheat would be equally an infraction of this article, though perhaps a tenant might lose one hundred pounds by the very means by which his lease was forfeited.

The reason why a large proportion of modern leases are encumbered and disgraced by a number of vexatious frivolities, of one kind or other, may perhaps be found in the interest which those who draw them up, may feel in making them as long as possible, or in retaining a convenient portion of power in their own hands; but whatever may be the cause, I presume the mutual injury of the interests of both landlord and tenant is the consequence.

A tenant who possesses both the inclination and ability to improve an estate in a material degree, will never reflect with pleasure, that it is in the power of either the landlord or his agent to deprive him of all his prospects of gain, for a piece of mismanagement, on account of which no jury of free-born Englishmen would bring in five shillings damages.

A plan might be drawn up to grant leases for the term of fifteen or twenty years, in which the rent might be regulated by the average price of wheat in England and Wales, as published in the London Gazette, in the same manner as corn rents have been given to the Clergy in lieu of tithes. Let a lease be drawn up, and the rent fixed

for the first five years of the term in the usual manner; with a covenant, that the rent of the next, and every successive five years, shall be raised or lowered in proportion as the price of wheat, in the five years last pasted, has been more or less than the average price which it bore in the ten years immediately preceding the date of the lease or agreement. But as it is very probable, that the prices of butter, meat, &c. may not, in all cases, exactly follow the price of wheat, it would be better perhaps to subtract twenty per cent. from the alteration that might be deduced, merely from the price of bread corn. Now, on the supposition that the average price of wheat, for ten years preceding the lease, be 9s. per bushel, and that it fluctuates to 8s. 10d. and again to 8s. per bushel in the three following terms of five years each, in this case the statement will stand as follows, for a farm let, in the first instance, at 300l. per annum:

Rent of the first five years 300l. $\times 5 =$ £1500 0 0

Then as 9 : 1 :: 300 : 33l. 6s. 8d.

And 33l. 6s. 8d.; — 20 per

cent. = 26l. 13s. 4d.

Consequently the rent of the second five years will be 300 — 26l. 13s. 4d. $\times$ } 1366 13 4
5 =

In the next five years, the rent will be raised in a similar proportion, the price of corn having varied from 9s. to 10s. per bushel } 1639 6 8

In the last five years of the term the rent will be the same as in the second division of the lease } 1366 13 4

The adoption of such a plan as this would cause a little additional trouble to land stewards, but, at the same time, it would give such a security to the interests both of the landlord

landlord and the tenant, as cannot be obtained; perhaps, by any other means. Such a lease might be made voidable by either party, at the end of five, ten, and fifteen years, the proprietor abating ten per cent. of the rent in the last year, if the separation takes place at his request, and paying for all improvements, according to the time they have been made.

A tenant, under such a lease, would make no scruple of adopting every plan that was likely to increase the fertility of the soil; as the profits attending such measures could by no means be wrested out of his hands; and if, by any alteration of circumstances, he was obliged to quit the farm at the end of ten years, the abatement of rent would amount to 133/ 6s. 8d. as a remuneration for his having cultivated the farm through a series of seasons, in which the price of corn had been depressed from 9s. to 8s. a bushel.

If the lease was broken at the end of fifteen years, the rent would have corresponded with the advanced price of corn, and the advantage, in this case, would have been on the side of the landlord.

It has been objected to proposals for regulating rent by the average price of corn, that the tenant would have the most rent to pay in years of scarcity, when perhaps he has but little corn to sell: yet it is sufficiently obvious, that taking an average of five years removes that objection.

SECT. VII.—COMPARISON OF TIMES.

THE following is the result of the inquiry made by the Board of Agriculture, with respect to the difference between the price of labour, &c. in the years 1790 and 1804.

COMPARISON OF TIMES.

LABOUR.

Price in winter, per week, 1790	0 6 6
1804	0 8 0
Price in summer, per week, 1790	0 6 6
1804	0 8 6
Price in harvest, per week, 1790	0 10 6
1804	0 14 0

Reaping wheat, per acre, 1790	5 6 0
1804	7 0 0

Mowing barley, per acre, 1790	1 1 0
1804	1 4 0

Thrashing wheat, per quar. 1790	2 2 0
1804	2 4 0

Thrashing barley, per quar. 1790	1 1 0
1804	1 4 0

BLACKSMITH.

Tire, per lb. 1790	0 0 5
1804	0 0 4

Plough irons, per lb. 1790	0 0 4
1804	0 0 6

Chains, per lb. 1790	0 0 5
1804	0 0 8

Shoeing, per shoe, 1790	0 0 6
1804	0 0 7

Carpenter,

EXPENSES AND PROFIT.

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	EXPENSES	PROFIT
<i>Carpenter</i> , by day, 1790	0 1 6	
<i>Maon</i> , by day, 1790	0 1 7	
<i>Thatcher</i> , by day, 1790	0 2 0	

SECT. VIII. EXPENSES AND PROFIT.

The following calculations, which were made in 1807, are here inserted, as giving some general idea of the state of the county, in various respects, respecting which minute accuracy cannot be expected.

Live Stock.	Number.	Value.		
Cows, average value 15 <i>l</i> . a piece ..	26,721	347,273	0	0
Fattening cattle, 17 <i>l</i> . ditto	3,100	54,230	0	0
Working Oxen, 15 <i>l</i> . ditto	150	2,250	0	0
Stores, from 1 to 3 years old, at 8 <i>l</i> . ditto	19,615	156,680	0	0
Rearing calves, at 21 <i>s</i> . each	6,557	6,884	17	0
Fattening calves, 25 <i>s</i> . each, sup- posing to be sold in hand ..	3,711	4,638	15	0
Bulls, (one to fifty cows), at 13 <i>l</i> . a piece	532	6,916	0	0
Total ..	60,406	578,072	2	0
Sheep, at 35 <i>s</i> . a piece, on the average ..	267,446	468,030	10	0
Lambs, at 10 <i>s</i> . ditto	113,868	108,174	12	0
Total ..	381,314	576,205	2	0

Horses,

Live Stock.	Number.	Value.		
		£.	s.	d.
Horses, working, 20 <i>l.</i> each, on the average	9,311	186,220	0	0
Nags, at 26 <i>l.</i> 5 <i>s.</i> each, (including cavalry, &c.	1,299	33,941	5	0
Store colts, from 1 to 3 years old, 20 <i>l.</i> each	3,093	61,860	0	0
Foals, at 8 <i>l.</i> each	1,091	8,248	0	0
Stallions, at 50 <i>l.</i> each	100	5,000	0	0
Total ..	14,828	295,269	5	0
Hogs, average at 25 <i>s.</i> each	17,949	22,436	5	0
Pigeons, at 5 <i>l.</i> a house	165	525	0	0
Bees, at 10 <i>s.</i> 6 <i>d.</i> a hive	7,278	3,820	19	0
Poultry, at 20 <i>l.</i> each parish and taking	326	6,520	0	0
Total value of Live Stock ..		1,483,448	13	0

Produce of Cattle, &c.	Number.	Produce.		
		£.	s.	d.
Cows let to dairymen at 9 <i>l.</i> each, averaged	26,721	240,489	0	0
Dairymen's profit 3 <i>l.</i> each, ...		80,163	0	0
Stores sold at 12 <i>l.</i> each, ...	1,948	17,028	0	0
Calves sold to fat, &c. at 25 <i>s.</i> each, ...	18,077	22,596	5	0
Calf skins, at 5 <i>s.</i> each	668	167	0	6
Cows' hides, at 12 <i>s.</i> each	1,419	851	8	0
Fat cattle, at 17 <i>l.</i> each	3,190	54,230	0	6
		415,524	13	0

(The fat cattle, lean stores, and annual deaths, are equal to the number of calves that are supposed to be reared.)

Produce

EXPENSES AND PROFIT.

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Produce of Cattle, &c.	Number.	Produce.	
		£.	s. d.
Sheep. Fleeces of wool, $3\frac{1}{2}$ lbs. } each, at 1s. 6d. per lb. }	267,446	65,239	8 3
Lambs, $\frac{2}{3}$ shorn, at 1lb. a fleece, } and at 1s. a pound }	75,912	3,795	12 0
Sheep, sold at 35s. each, ...	70,216	122,878	0 0
Lambs, sold at 19s. each, ...	35,109	33,353	11 9
Skins and pelts of such as die, } 2s. 6d. each, ...	8,548	1,067	17 6
Locks or clagings, $\frac{1}{2}$ lb. each } sheep, at 6d. per lb. }		3,343	1 6
Lamb skins, at 3d. each, (sup- posing $\frac{1}{3}$ to die)		47	7 6
Total ..		229,724	17 9
Horses, sold at 20l. a piece	661	13,220	0 0
Stallions, the season, at 50l. each,	100	5,000	0 0
Skins, at 12s. each, (supposing } $\frac{1}{3}$ to die)	370	222	0 0
Total ..		18,442	0 0
Hogs, sold at 50s. each on the average	11,936	29,840	0 0
Pigeons, sold or consumed, at 5l. a house	109	545	0 9
Bees, at 10s. 6d. a hive (suppos- ing half taken up)	3,639	1,910	9 6
Poultry, eggs, &c. at 10l. each parish and tithing	826	8,260	0 0
Total produce of Live Stock, per annum		689,227	0 3

Produce

<i>Produce of the Arable Land.</i>							
	Bushels per acre.	Bushels.	Price per bushel. s. d.	Number of acres sown.	Value of Produce.		
					£.	s.	d.
Wheat	17½	529,868	8 0	30,717	211,947	6 0	
Barley	25½	783,009	4 6	30,718	176,244	10 6	
Oats	27½	591,712½	4 3	21,517	126,738	18 1½	
Pease	15½	141,750	7 6	9,000	53,156	5 0	
Beans	18½	3,650	7 6	201	1,368	15 0	
Hemp and flax, 11l. per acre to the farmer, and 9l. to the jobber				145	2,902	0 0	
Potatoes, 7 tons per acre, at 50s. a ton				500	8,750	0 0	
Seeds sold in hay or seed, 1½ ton per acre, at 3l. 15s. or 27 bushels of seed, at 3s. per bushel				15,023	65,723	0 0	
				107,820	645,828	14 7½	

Arable produce consumed by Stock.

		£.	s.	d.
Seeds, at 4l. an acre, for the use of sheep	15,023	60,092	0 0	
Turnips, at 45s. an acre	23,024	56,304	0 0	
Tares, duck wheat, &c. worth, by keeping 90 sheep a week, 45s. an acre	5,721	12,872	5 0	
	45,768	129,268	5 0	
Stubbles, at 1s. 6d. an acre	92,152	6,911	8 0	
Total consumed by Stock		136,179	13 0	

EXPENSES AND PROFIT.

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The amount of arable produce, sold, &c.	£ 645,828	14	7½
Live Stock, ditto	699,227	0	3
Total ..	£ 1345,043	14	10½

Rent of the County.

	£.	s.	d.
Arable, pasture, & meadow, 396,247 acres, at 19s. 5½d. on the average ..	395,515	18	7
Commons, 26,916 acres, at 4s.	5,383	4	0
Open downs 31,272 acres, at 2s.	3,127	4	0
Heath, 29,979 acres, at 6d. per acre	749	9	6
	394,775	16	1

Three years rents 1,184,327 8 4½

Excess of the saleable produce above }
three years rents } £ 160,718 6 6

Though it is supposed the tenants of this county scarcely make three rents of their land, the above surplus cannot, with any propriety, be applied to the rents, as it seldom happens but the produce comes short of the calculation; besides, there are many summer fallows, though the land is all calculated to be under crops, to show the loss thence arising. It may be necessary to allow a draw-back of one-twelfth of the arable, to be considered as in the state of summer fallow, or other similar wastes. Three-fourths of the county appears also to be titheable, which must be deducted out of the produce.

Two-

	£.	s.	d.
Two-thirds of the arable, pasture, and meadows, titheable at 3 <i>s.</i> 6 <i>d.</i> an acre	46,228	14	0
Three-fourths of the commons, at 8 <i>d.</i> an acre	672	18	0
Three-fourths of the open downs at 4 <i>d.</i> an acre	395	18	0
Three-fourths of the heaths, at 1 <i>d.</i> an acre	93	13	6
The tithe of orchards, valued in the whole at 50 <i>l.</i> a parish—total 16,350 <i>l.</i>	1,635	0	0
(Tithe of woods, &c. valued at 815 <i>l.</i> per annum, not included in the farmer's accounts)			
Tithe of milk, eggs, fowls, &c. supposing $\frac{2}{3}$ of the rent to be charged 6 <i>d.</i> in the pound	6,527	2	0
Total of Tithes	£ 55,553	5	6
33,020 acres of which are in summer fallow, instead of producing turnips, &c. at 45 <i>s.</i> an acre	74,295	0	0
	£. 129,848	5	6

When these deductions of tithes, and deficiencies on account of naked fallows, are subtracted from the former surplus, the excess of the produce above three rents, will be only 30,870*l.* 1*s.*

<i>Estimates of Stock kept on different Spaces of Ground.</i>	<i>Acres to each.</i>	<i>Number of cattle.</i>	<i>Acres occupied.</i>
Cattle in summer pasture	1 $\frac{1}{4}$	26,721	46,761
Pattening beasts	1 $\frac{1}{4}$	3,190	5,580
Working oxen	1 $\frac{1}{4}$	150	188
Stores on ewe leaze among } sheep, 1 beast to 17 sheep, }	7	16,492	116,502
Stores on commons	4	3,364	13,458
Stores on heaths	20	1,491	29,979
(The calves are included among the stores, and 4 are reckoned equal to 1 beast.)			
	<i>Number to an acre.</i>	<i>Number of sheep.</i>	<i>Acres.</i>
Sheep on summer pasture, or } ewe leaze	2 $\frac{1}{2}$	291,255	116,502
— on the best downs	1	15,636	15,636
— on the worst downs	$\frac{1}{3}$	7,818	15,636
— on heaths	$\frac{1}{15}$	1,998	29,979
— on grass-seeds	3	45,069	15,023
— on tares, rape, &c.	4	19,528	4,880
		381,304	197,656
		<i>Horses.</i>	
Horses fed on tares which } remain from the sheep.	4	2,241	841
Stores, mares, &c. in number } 2689, and $\frac{2}{3}$ of the mags and } cart horses, which is 7070, } are dispersed in pastures ..	31	9,759	306,991
Stallions kept in paddocks or } stables		100	
Store colts, mares, and foals, } dispersed over commons, } and heaths	30	2,828	88,167
		14,828	395,999

Winter

<i>Winter-keeping.</i>	Acres of hay to each.	Number of cattle.	Acres of hay.
Cows fed on hay	$1\frac{1}{2}$	26,721	46,762
Oxen	$\frac{1}{2}$	150	112
Calves reared	$\frac{1}{4}$	6,557	1,639
		33,428	48,513
	Acres.		
Stores kept on straw	2	19,615	39,230
Cows which are kept on straw for 8 or 10 weeks, conse- quently suppose $\frac{1}{4}$ of the whole number, kept on two acres each, when dry	2	6,680	13,360
Oxen the whole number kept about half the winter, al- lowing two acres of straw till February, then fed on hay till May the 14th	2	75	150
Bulls	2	532	1,064
		26,902	53,804
	Number per acre.	Number of sheep.	Acres.
Sheep, at turnips, with hay ...	$4\frac{1}{2}$	112,608	25,024
— on, after-math of mea- dows, with hay	$1\frac{1}{2}$	110,442	73,629
— on pasture land, (less than $\frac{1}{2}$ a sheep)	$\frac{1}{2}$	66,508	169,031
— on heaths	$\frac{1}{100}$	299	29,979
(The sheep have the hay of 8550 acres).			
		289,857	297,662

Stallions

	Number of acres.	Number of Horses.	Acres.
Stallions in winter, hay	1½	100	150
Cart horses ditto	1½	9,311	13,961
Nags ditto	1½	1,293	1,939
Foals ditto	½	1,031	515
		11,735	16,565
	Straw.		
Store colts at straw	2	3,093	6,186

		Acres.	Total.
Hay consumed by	Cattle	49,513	73,628
	Horses	16,865	
	Sheep	8,550	
Straw consumed by	Cattle	53,804	92,152
	Horses	6,186	
Ditto sold to the Barracks and Inns, or cut into chaff, or drawn for feed		32,162	

Expense of Arable Land.

Calculations of this kind have seldom proved very accurate, as it is not easy to obtain sufficient data to proceed upon. But as it is equally necessary to make an estimate of the expense, as of the produce of the soil, a calculation is here given relative to a common round of cropping on a hilly and flinty arable farm, in the chalky district of this county.

The principal data on which the table is founded, are as follow: Rent, 16s. 6d.; tithes 3s. 6d.; and poor's rates, 3s. 8d. per acre.

	s.	d.
Fallowing, or breaking land for wheat &c. em- ploys four horses, at 3s. each per day	12	0
A man and boy	1	6
Wear and tear of iron, harness, &c.	1	0
Expense of ploughing three roods	14	6
Common ploughing three horses, at 3s. each	9	0
A man and a boy	1	6
Wear and tear	0	9
Three roods ploughed per day, at	11	3
Ploughing with a pair of horses requires stronger cattle, and more corn and hay; the expense by this mode of ploughing will be two horses at 3s. 9d. each	7	6
A man	1	2
Wear and tear		9
Three roods ploughed at	9	5
Improved method of ploughing per acre	12	6
Common ploughing with three horses	15	0
Fallowing with four horses double	19	4

The quantity of seed per acre is, three bushels of wheat; four bushels of barley; and five bushels of oats; one bushel of Devonshire rye-grass; and fourteen pounds of small seeds.

The price of corn which is adopted in these calculations, is the average price for England and Wales, in the five years next after 1800. The present prices are higher, but it is hoped they will not be permanent. Wheat is calculated at 8s. 9½d.; rye at 5s. 4d.; barley at 4s. 3d.; oats at 3s.; beans or pease at 5s.; and tares at 6s. a bushel; and 3d. per acre is allowed for sowing.

It

It is evident, that these calculations must be merely relative; but then, if the price of the produce rises in proportion with the increase of rent and the price of labour, which, on an average of years, it will be found fully to do, the utility of such calculations will not be affected, though the accuracy of all the parts is affected. If it be argued, that the expense of arable land is now much greater, it may in reply be urged, that the produce derived from arable land, or rather the sum of money which that produce gives, is at least greater in the same proportion. If, therefore, a farmer wishes for data, on which to calculate the expense of arable land in any district, such a table as that here given, if it be accurate and well founded, will afford them, even though the rent of land and the price of labour have increased, since the price of grain has increased with them; and it perhaps is not going too far to assert, that the farmer will err on the safe side; that is, he will calculate the expense of arable land rather too high than too low, if he takes it to bear the same proportion to the average price of the different kinds of grain, at the time he wishes to form his estimate, as it bore to them when the tables were drawn up.

Modern Five-shift Course on Chalky Loams.

Succession of Crops.	Turnips.	Barley.	Seeds.	Seeds.	Wheat.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Rent and tithes. . . .	1 0 0	1 0 0	1 0 0	1 0 0	1 0 0
Poor's rates	0 3 8	0 3 8	0 3 8	0 3 8	0 3 8
Income tax	0 1 4	0 1 4	0 1 4	0 1 4	0 1 4
Window tax	0 0 6	0 0 6	0 0 6	0 0 6	0 0 6
Highway duty	0 1 2	0 1 2	0 1 2	0 1 2	0 1 2
Fallowing, or first ploughing	0 15 0	—	—	—	0 19 4
Other ploughings (3) . .	2 5 0	0 15 0	—	—	—
Scarifying (nine share) &c.	—	—	—	—	0 4 0
Harrowing	0 7 0	0 3 6	1 0	—	0 3 6
Rolling	0 1 6	0 0 6	0 0	—	0 1 0
Carriage of manure . .	0 4 6	—	—	—	0 4 6
Turning, filling, spreading	0 1 6	—	—	—	0 1 6
Value of fold from the downs	0 5 0	—	—	—	0 10 0
Value of seed, and sowing	0 2 3	0 17 5	0 16 3	—	1 6 6
Couch, burning, clod- ding, &c. . . .	0 2 0	—	—	—	—
Weeding, hoeing, &c. .	0 8 0	0 1 6	0 1 0	0 1 0	0 2 0
Reaping, mowing . . .	—	0 1 10	0 2 3	—	0 9 0
Binding, cocking, &c. .	—	0 2 0	0 3 0	—	0 2 0
Thatching of ricks . .	—	0 1 0	0 0 6	—	0 0 6
Harvest carriage . . .	—	0 8 0	0 6 0	—	0 6 0
Carriage to barns from the stackyard . .	—	0 2 0	—	—	0 1 6
Thrashing, &c. . . .	—	0 3 0	—	—	0 11 0
Expense of sale	0 2 0	0 2 0	0 2 0	0 2 0	0 2 0
Carriage to market, &c.	—	0 4 6	—	—	0 4 6
Casual jobs	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Depredations & losses .	0 0 6	0 0 6	0 0 6	0 0 6	0 0 6
Attendance of sheep . .	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Wear and tear of hurdles	0 0 6	0 0 6	0 0 6	0 0 6	0 0 6
Average 4l. 10s. 8d.	6 3 5	4 16 11	3 2 2	1 12 8	6 18 6

In

In order to defray these expenses, and obtain a moderate remuneration for the use of his skill and capital, the farmer should grow much better crops than are calculated on in the preceding tables, as may be seen from the following statement :

	£	s.	d.
Turnips, per acre	3	10	0
Barley, 32 bushels, at 1 <i>l.</i> 14 <i>s.</i> 3 <i>d.</i> per qr.	6	17	0
Seeds, 1½ tons of hay, at 3 <i>l.</i> per ton	3	15	0
Sheep feed, before and after the hay crop	0	12	0
Sheep feed in the spring of the second year	1	10	0
Wheat, 20 bushels, at 8 <i>s.</i> 9½ <i>d.</i> per bushel	8	15	2
Stubbles, at 1 <i>s.</i> 6 <i>d.</i> per acre	0	3	0
Straw, reed thatch, chaff, &c. at 9 <i>s.</i> an acre	0	18	0
Average produce, 5 <i>l.</i> 4 <i>s.</i> 0 <i>d.</i> —Total	26	0	2
Average expense per acre, 4 <i>l.</i> 10 <i>s.</i> 8 <i>d.</i> —Total	22	13	8
Average gain per acre, 13 <i>s.</i> 3½ <i>d.</i> —Total	£ 3	6	6

The capital which is necessary for the proper management of arable land, in the upland part of Dorset, is probably 8*l.* or 9*l.* per acre ; and it appears from the above calculations, that the farmers' gains are less than 10*l.* per cent. for the use of their capital, even when their wheat crops are two and an half bushels, and their barley crops six and a half bushels per acre, above what is said to be the average of the county. The average produce of wheat in several parishes, is said to amount to only twelve bushels per acre, and in some is as low as eight bushels ; but whether this is considered to be the proper produce of the land, or whether the seed and the tithe are previously deducted, it does not appear ; but, at any rate, it is obvious that no farmer can live by such crops, even if he has the land rent-free. Sixteen

bushels of wheat per acre will barely cover the expense of cultivation.

At the present time, indeed, the actual expense of cultivation, as well as the profit, is higher than is stated ; but the wheat crop of 1810 was so injured by the frosts, that many farmers had not more than enough for seed, and to supply their labourers and their own families.

CHAP. V.

IMPLEMENTS.

SECT. I.—PLOUGHS.

THERE are two kinds of ploughs in general use in Dorsetshire, one of which is made with a straight horizontal beam, supported near the draught iron, or capstan, by a wheel which runs on the unploughed land, and can be moved to regulate the depth of the work. The mould-board is generally curved in some measure; but it rises more abruptly from the share than it ought; and the hinder part of the mould-board is not curved outwards sufficiently to insure a complete and regular turning of the furrow.

The mould-boards are usually covered with plate-iron, and they are rather longer than in other districts. The width of the heel is about nine inches in general, and this is also the breadth of an ordinary furrow. The *shares* are much like those which are commonly used on flinty soils: the point is long, and like the end of an iron crow, which enables it to force its way among the stones. The fin, or the part which clears the bottom of the furrow, appears often to form too obtuse an angle with the mould-board, or does not lean backward sufficiently to permit it to remove obstructions with all the ease that is desirable. The land-side of the share is a plate continued to the heel of the plough, where it is fastened to the wood by an iron pin and crew.

The handles of this implement form its most prominent defect, and have an awkward uncouth appearance, being supported by a kind of props.

The other kind is called a *Check-Plough*; and, in respect to the share, mould-board, and handles, does not differ materially from that already described. The peculiarity of construction in the *check-plough* consists in the machinery which is employed to regulate the depth of the furrow. For this purpose, the end of the beam is elevated, at an angle of thirty or forty degrees, the same as in the Norfolk plough; but the draught depends on two flattish pieces of timber, which are pinned one to each side of the beam, by a single pin passing through the beam at a small distance before the coulter. The other ends of these two pieces are fastened together by the capstan, which is horizontal, and is notched in the usual way, in order to furnish the means of altering the width of the furrow. A small wheel is fixed between the two flat beams, near the draught iron; and immediately behind the wheel is a vertical piece of wood, which passes through a mortise in the principal beam, the elevation of which, and consequently the depth of the furrow, is regulated by a pin passing through the beam and its supporter.

It will be readily allowed, that the mechanism of the *check-plough* of this county, is very competent to effect the purposes for which it is designed; yet it is surely a roundabout mode of managing the business, which is more cheaply and effectively done by what is called a *tee-head* in Bedfordshire: a print and description of which may be seen in the Agricultural Survey of that county.

There are few ploughs without a wheel in Dorsetshire; and it would require stronger arguments than the advocates of swing-ploughs have generally advanced, to induce the farmers to adopt them on the flinty and stone
brash

brash soils in this county. Indeed, on some of the most flinty soils, the land is ploughed with much difficulty, even with the aid of a wheel, and the occasional pressure of a man to keep down the plough. The price of the common ploughs is about 3*l.* or 3 guineas. A new wing and point to the *share* costs 2*s.* 6*d.* and the wing lasts twice as long as the point. Pointing the share or the coulter is 1*s.*

It was observed in 1807, that there were but six instances where they use any other but the county plough, viz. at Charmouth, a Norfolk plough; at East Compton, small and heavy Sussex ploughs; at Hamworthy, a Norfolk plough; at Silton, Mr. Davis had Beverston, Norfolk, and double-furrow ploughs; at Winford, Mr. Bridge had a Beverston plough, with some small alteration, and a Norfolk plough; at Winterborne St. Martin's, Mr. Hardy had a Scotch plough.

The number of ploughs constructed differently from the common ones of the county, is at present considerably more than those above mentioned. Small's Scotch plough is introduced about Loders, &c. At the farm of — Wolstenholme, Esq. at Bexington, Scotch ploughs are used; and a very small one, about six inches wide at the heel, with an iron mould plate, and in all other respects similar to the large ploughs, is employed for hoeing, or cultivating the intervals between the rows of peans, pease, turnips, &c.

Mr. Clapcot, of Whitechurch, has Plenty's plough, all of which, except the beam and handles, is iron, and the cost of it, with twelve points or shares, is six guineas. The *points* are made of the hardest kind of cast-iron; and, being fixed on the end of an iron, which is capable of being moved, they can be made to point a little more into the ground, when their form is injured by use, and
are

are then capable of ploughing many acres of land when in a loose state, as in turnip-sowing, &c.

Mr. Spear, near St. Giles, has also Plenty's iron-headed plough, and thinks it a good one; he has also several other kinds of ploughs. It appears, that Mr. Plenty has made his ploughs of several different kinds; and that the making of cast-iron land-sides to ploughs, is in use in many other places beside Hampshire. Some of this sort are made at St. Giles's, and different kinds are used by the Rev. the Dean of Salisbury, Mr. Young at Horton, &c.

Some of the cast-iron frames are screwed to the land-side of the beam; others are fixed to the mould-board side; and some underneath the beam. Some have a notch, in which the left handle is screwed; others fasten the coulter on in the same manner; the iron frame being continued beyond the coulter, and contributing much to the strength of the plough. In some cases, instead of making a mortoise through the beam for the coulter, as is the common practice, a notch only is cut in the side of the beam, and the coulter is fastened by a screw, which passes through a strong plate that is fastened to the beam by a screw through each end of the plate. The wood, which surrounds three sides of the coulter, is, in this case, secured from wear and bruises by a covering of plate iron.

In this kind of ploughs, the hinder parts of the mould-plate and land-side are fastened by two braces crossing each other, and the screw that passes through both the plates, at the forepart, or throat of the plough, has the nut on the land-side, in an excavation which is sunk for the purpose of preventing any lodgment of couch, &c. as well as to preserve the nut from being worn. The cast-iron shares are made as thin as is consistent

sistent with a due degree of strength, to prevent as much as possible the inconveniency of the point wearing away underneath, which causes it to turn up in some measure; and the land-side of the share is generally raised half an inch higher than the plate, to make it stronger, without much increasing its weight or thickness. The mode of draught in these ploughs consists in an apparatus of chains and bars, which pass some inches below the beam. The hinder part of the apparatus is a large iron link, which passes over the beam near the handles, where it is attached to the iron land-side, by means of a kind of saw teeth, which project upwards. The other end of the link reaches some inches beyond the coulter.

The common ploughs of this county, though inferior to most of the ploughs with cast-iron mould-plates, are superior to most of those in which the wood is not covered with plate-iron.

The superior weight of such ploughs as Mr. Plenty's, and those made at St. Giles's, would prove a sufficient recommendation on soils abounding with large flints, even if they possessed no other merit.

Trenching Ploughs are not used in this county. The chalk frequently lies near the surface of the soil, and the farmers would prefer to plough only two or three inches deep, rather than to bring it up in that operation.

Draining, or Mole-Ploughs, have been used in a few places, but they cannot be worked in stony soils. Mr. Cox, of Fifehead Magdalen, has used Lumbert's patent mole-plough, which is drawn forward by means of one horse and a windlass.

SECT. II.—HARROWS, DRAGS, &c.

THE harrows are square, and consist of five beams, in each of which are five tines, at about nine or ten inches distant. They are generally drawn in pairs, and are joined together by one or two beams lying across the harrows, and connected loosely to the second or third beam from the inner side of the harrows, by a kind of staple which is screwed into the cross beam. This method of joining together two or three harrows, forms no obstruction to their necessary motions, and yet effectually prevents their turning, one on the back of the other. The beams are often curved outwards in some measure, or set a little further apart behind than before, with a view of preventing the tines in each beam from passing along the same tracks.

A large harrow (which is termed a drag) is often used. These are similar in construction to the smaller kind, and are in common use in many parts of England.

Mr. Spear has some small harrows, the tines of which are screwed into the beams, and are bent forward considerably. It may be observed, that tines of this kind are the best for the purpose of drawing couch-grass to the surface of the soil: yet they become soon obstructed, by the grass and other rubbish wrapping round them, and can scarcely be cleared by lifting them in the usual manner.

SECT. III.—SCARIFIERS, NINE-SHARE PLOUGH, &c.

THE *Nine-share Plough* is said to have been originally derived from Wiltshire; it has, however, been used in this

this county for twenty years, and is now in general estimation on the whole of the chalky district.

The *shares* (as they are termed) are something like strong coulter: they have a hollow part behind, and near the ground, which is wider and deeper than the cast-iron *shares* in Cooke's drill machine: the bottom part bends forward in a right angle, and ends in a point four or five inches from the vertical part.

The body of the implement consists of two strong beams, which lie across the hinder part, and in these are inserted the nine shares—four in the former, and five in the hindmost beam. The cross beams are strongly mortised into pieces of timber at the ends, and placed about eighteen inches apart; their length is regulated by the distance between the shares, which is from fourteen to eighteen inches. A small wheel supports each end of the frame, containing the shares, running under the frame, and near the points of the outer shares.

The implement is supported at the forepart by two wheels, and drawn by a chain, much in the manner of a Norfolk plough. It is principally used for loosening the surface of ground which has been ploughed some considerable time, and perhaps folded upon previous to sowing of wheat.

A scarifier is used by E. B. Portman, Esq. at Bryans-tone, near Blandford, which is constructed much in the same form as the nine-share plough; but, instead of *shares*, strong tines only are used, which bend forward very considerably near the bottom, and are a foot apart in each beam.

Mr. Young of Horton, has an extirpator, the tines of which are nearly like those above described; he has also different kinds of scufflers, one of which has seven large hoes, with a number of holes in the beams, for the purpose

purpose of placing the hoes at such distances as are deemed most applicable to the state of the land.

Mr. Spear has a kind of scuffler, with four fixed wheels, which, as before observed, is one more than can be of any utility in regulating the motion and depth of these implements; and the circumstance of the fore wheels being fixed, renders it difficult to turn at the land's end.

On foul land, most of these tools may be used to advantage, but their merits are not such as to demand any particular description.

It is remarkable, that most of the implements formed on the principle of the scuffler, in this and other counties, are drawn by the same kind of machinery as the Norfolk plough; though it is obvious, that a single moveable wheel at the fore-part, contrived so as to follow the motion of the horses, or a castor-wheel, like that described in the Survey of Bedfordshire, would answer the same purpose, and diminish the price of the implements.

It is necessary that all tools of this kind should have a strong beam proceeding from the centre toward the fore wheels, and it seems very natural that the horses should draw by the end of it. It appears, however, that modern mechanics think otherwise, and therefore take much trouble to make this beam point upwards, for no other purpose than to supply its place by a chain. Some even go so far as to suppose the chain to be possessed of a mysterious power to lighten the draught of the instrument.

Rollers are mostly of the common kind, about seven or eight feet in length, with a frame, and a single or double pair of shafts. At Horton, there is a roller composed of a kind of wooden wheels, the outside circumference
of

of which is covered with an iron hoop, nearly two inches wide, and the inside part sufficiently thick to leave an interval of three or four inches; when all the pieces are put close together on a small wooden cylinder passing through the whole. This tool seems well calculated to consolidate the chalky soils, and may also be used after the wheat is sown, without leaving a smooth surface, which, for wheat, is not considered a desirable circumstance.

There are also several stone rollers. The great weight of these implements makes them useful in crushing ant-hills, and levelling the surface of pasture land.

SECT. IV.—DRILLS AND HORSE-HOES.

SEVERAL farmers in this county have Cooke's drill machine, but very few make any use of it. T. B. Bower, Esq. of Iwerne, complains that his men could not make good work with Cooke's drill, and it was of course laid aside. The same complaint has been made by many farmers, both in and out of Dorsetshire.

At Bexington, pease and beans are drilled by a machine similar to that used in the North of England, and in Scotland, which drops them in the furrow after the plough; and turnips are drilled by means of the Northumberland, or Scotch turnip drill.

Mr. Bowker, of Charborough, has a small drill plough, without any wheel at the fore-part. It drills but one row at a time, and the wheel which turns the cylinder is in the hind part of the plough, and runs very near the place where the corn falls; the holes in the cylinder are capable of being made smaller or larger, to suit different kinds

kinds of corn, in the same manner as in Mr. Bailey's large Northumberland drill.

This gentleman also has a double hoe-plough, which consists of two beams fastened together by long screws, with nuts on each side of the beam, and moveable to various distances. This tool has a kind of shares, the *wings* or *fins* of which are turned towards each other. It is intended to turn a furrow from the rows of pease, &c. previous to their being moulded up by means of a *double mould-board plough*, of which there are many in this county, used principally in the culture of potatoes.

The small hoe-plough, mentioned in Sect. 1. at the farm of Mr. Wolstenholme, appears to be well adapted for cultivating the wide intervals which are often left between the rows of potatoes and turnips; neither is it probable that any plough can be contrived that will work effectively on both sides of the intervals at once.



SECT. V.--THRASHING-MILLS AND WINNOWER-MACHINES.

A CONSIDERABLE number of thrashing-machines have been erected in this county, and nearly all of them within the present century: the principal inducement for using them is a scarcity of labourers, which, in a state of warfare, may be expected to be felt most in the maritime districts.

The following is the result of a very careful and attentive examination of most of the principal thrashing-machines in this county, by Mr. Bachelor.

Mr. Bridge, of Winford Eagle, has a large thrashing-mill, which is worked by six oxen, at the distance of
thirteen

thirteen feet from the central shaft, but he complains that oxen go too slow to thrash so clean as is desirable, and that he wants his horses for other purposes. The horse-wheel consists of iron segments screwed upon wood; it has 180 teeth, and turns a spur-wheel with 13 teeth; the shaft from which passes into the barn, where a wooden wheel with iron segments, containing 128 teeth, turns a pinion with 12 teeth on the axle of the drum.

Oxen, at this kind of work, will scarcely walk more than a mile and a half in an hour; and as their path is about 81 feet in circumference, they will make 98 revolutions in that time. The velocity of the drum, as compared with the ox-wheel, is increased about 148 times, and of course revolves 14,504 times in an hour, or 241 times in a minute. Now, if the circumference of the drum in this machine is 10 feet, the velocity of the beaters is 2410 feet in a minute.

It is stated, that "Mr. Bridge's machine thrashes from 60 to 80 bushels of wheat in eight hours; 150 bushels of barley; and 160 to 180 of oats."

Mr. Goodenough, of Frampton, has a thrashing-machine, a six-horse power also, but which is now worked by water, and much to Mr. Goodenough's satisfaction. The maker of this, and Mr. Bridge's, and several others in the county, is Mr. Geekie, a Scotchman. The original cost of Mr. Goodenough's machine, &c. was about 400*l.*, and the repairs have been very trivial in seven years. The straw goes over the drum, which is open, and has six beaters. Five women and two men are employed in attending the thrashing; and from 20 to 23 sacks of wheat are thrashed in a day, between eight o'clock in the morning and six at night; but it is difficult to obtain correct accounts of the quantity of wheat that may be thrashed by machines in this county, as

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Mr.

Mr. Goodenough and many others, very generally thrash only the ears, which are always put twice through the machine.

Thrashing-machines, to be turned by two men only, have been tried by Mr. Goodenough and Mr. Bridge, but laid aside.

The apron, or part above the cylinder, and which the straw rubs in its passage through the machine, is composed of pieces of wood slightly grooved, and set at a few inches apart; the feeding-rollers are made of wood, and the upper one is covered with sack-cloth; the upper roller is turned by a handle at each end, and the lower one turns merely by pressure against the other, being supported by springs, with a treader to depress it, and stop its motion when required. On the upper fluted feeding-roller is an iron wheel of two feet four inches diameter to the centre of the teeth, of which there are 72; and on the axle of the cylinder is another spur-wheel of six inches diameter, and twelve teeth, by which means the velocity is increased six times.

The teeth of the large wheel are an inch deep, half an inch thick at bottom, and diminishing almost to an edge at the points, where they are seven-eighths of an inch asunder. The cylinder (if an open frame with eight beaters, can be called a cylinder) is three feet long, and two feet five inches diameter, and the *beaters* are round pieces of wood about one inch and a half diameter, which will turn freely, being hung on a iron pin at each end.

Mr. Bridge observes, that these machines would only thrash the ears that had been clipped off in drawing *reed* for thatching; and not even these, so cheaply as by the flail.

Perhaps an improvement on the hand-thrashing machines would be, to make the cylinder larger, as well as

the wheel, which has a handle on it; this would be an easier way of increasing the velocity than by adding more wheels. The same purpose has also been answered, and with some appearance of lessening the friction, by a wheel on the lower fluted feeding-roller, with the teeth turned inwards, by which means the spur-wheel on the cylinder is included in the large one.

At Dallwood, Mr. Stocker has a thrashing-machine, which is worked by water. The water-wheel has a set of cast-iron teeth in segments, fixed all around one side near the edge.

The drum has only four beaters, it being of a square form, and the intervals between the beaters are closed with plate-iron nailed to the wood all round. Mr. Stocker thinks the drum should be closed, to prevent straws from wrapping round the beaters, which, however, is seldom complained of by those who have open drums. The feeding cylinders in this, and several other machines, are composed of wood covered with thin plate-iron, and are bruised in many places by the stones which are brought home with the barley, &c. The lower cylinder can be depressed an inch or two at pleasure by which means, wheat may be held in the hand a very short time till the ears are thrashed, and then the straw withdrawn, and used for reed-thatching. Mr. Stocker thrashes not only his own corn, but that of three or four neighbouring farmers, which is a plan worthy of general adoption, wherever it is practicable. This machine will thrash about eight bushels of wheat per hour.

Mr. Bevis of Wambrook, has a thrashing-mill, which was made by a Mr. Exton, price 50*l*. It will thrash from 25 to 30 bushels of barley in seven hours, but does not always thrash clean, unless fed very carefully.

Mr. Billet's thrashing-mill, at Warmwell, is a two-horse

horse power, made by Mr. Maggs. The velocity is increased about 70 times, by two large wheels, and two small ones in the common way; the drum is closed, and has eight beaters, and the apron, in this machine, and nearly all others in this county, is of cast-iron, with a kind of square teeth pointing downwards towards the drum. As the straw passes between the drum and the apron, and as the corn is in some measure rubbed out by friction against the apron, the teeth should be small and numerous, something like saw-teeth, and leaning the same way as the straw passes. In this respect the thrashing-mills of this county, are not so well constructed as in some other places.

The iron segments of which Mr. Billet's horse-wheel was composed, were made too slightly, and broke in consequence. They are now made more substantially, and the teeth are longer and more rounded toward the points; and in Mr. Billet's opinion, the machine works more freely on that account. The horses work the machine by a whipple-tree, or swingle-tree, which is hooked near the end of the shaft; though, by the original plan, the harness was attached to pieces of timber descending on each side of their shoulders.

The last mentioned plan has certainly been adopted in many instances, though not much in Dorset; but Mr. Billet objects to it, that the horses being continually turning, it pinched and wrung their shoulders, and is on the whole the worst plan, though a horse has more power when his shoulders are at the point of draft, than when drawing in a diagonal direction at three yards distance.

It appears that this machine will not often thrash clean unless the corn is put twice through it, and a load of straw often produces a bushel of corn the second time. Mr. Billet observes, that the boy who attends the horses should

should not strike them at any particular place regularly as when this is the case, they will soon remember it, and snatch forward at the place, by which means the machine may be injured.

Mr. Bryant of Berwick, in the Parish of Swyer, has a four-horse power thrashing machine, made by Mr. Coombs of Beaminster. The drum is square, and closed, about two feet diameter, and four feet long. The horses draw by a double plank fastened together at the ends, and passing on the opposite sides of the vertical shaft. The whipple-trees to which they are attached are fastened to the double planks, by an iron pin, and the diameter of the horse-path is 17 feet. The horse-wheel is made very strong, so as to be sufficiently firm without having props, or braces, (as is common), from the circumference to the bottom of the central shaft. The teeth of the horse-wheel, are on segments of cast-iron, and together with the pinion, are bevelled, by which means they are supposed to be made to run more freely together. All the other wheels are cast-iron.

In its original state the price was about 70 guineas, but the teeth of the horse-wheel were then made of wood, which in this and several other cases, has not proved sufficiently durable. The arrangement of the wheels, and the number of teeth in each, are exhibited below:

Teeth.

Drum pinion 12

58 $\frac{\text{shaft}}{a}$ 17

60 $\frac{\text{shaft}}{b}$ 14

Horse-wheel 108

The shaft marked *a*, is a wrought-iron bar, $1\frac{1}{4}$ inch square, and passes through the wall of the barn to the

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machine.

machine. The shaft *b*, is of the same kind, but is two inches square. It will be seen by multiplying together the teeth of the small pinions for a divisor, and those of the larger wheels for a dividend, that the velocity is increased, by the combination of these six wheels, 131 times.

If the horses walk at the rate of two miles an hour they will make 197 revolutions in that time, and the drum will revolve 480 times in a minute. The velocity of the beaters is about 2687 feet in a minute, which, though apparently greater than in Mr. Bridge's machine, is in fact considerably less, when due allowance is made for the different comparative pace of oxen and horses.

The fluted cylinders which draw in the corn are four feet long, and $4\frac{1}{2}$ inches diameter. The upper cylinder turns the same pace as the wheel with 58 teeth, which is 5339 times in an hour: consequently 64068 inches length of straw may pass through the machine in that time, which, if every sheaf be supposed 40 inches long, and divided into six parts in the feeding, would amount to 266 sheaves; a quantity sufficient in many cases to produce from 16 to 18 bushels of wheat. As the ears are mostly clipped off in this county, it is not easy to learn the quantity of wheat which may be thrashed in a day by the machines; but Mr. Bryant states the usual quantity of barley thrashed in seven hours, at about nine quarters, which is evidently very little, if any thing, cheaper than by the flail.

It may be seen by calculation, that the beaters in this machine strike the corn at its first entrance, at intervals of about two-thirds of an inch.

Mr. Clapcot of Whitechurch, has a thrashing-mill, worked by six horses. The horse-wheel has 180 teeth, and there are three other wheels of 15, 120, and 15 teeth,

teeth, by which the velocity of the drum is increased 118 times. The feeding cylinders can be made to move in three different paces, and the medium pace seems to be about one-third as fast as the drum. The diameter of the drum is about three feet ten inches, and the length five feet. Mr. Clapcot, prefers working the machine by the horses drawing by a swivel-tree, though they can be attached to double bars which descend from strong horizontal beams, as in Mr. Billet's machine.

Mr. Barker, of Bradford Abbas, has a one-horse power machine, which will thrash 20 bushels of barley a day, (when fed carefully so as thrash clean), and as much wheat.

It is said to be light work even for one horse, who generally works from six o'clock in the morning to six at night, and sometimes for a week together. When straw is wanted for thatching, the rollers by which the machine is fed, are set an inch apart, and the wheat-straw is held in the hand till the ears are thrashed, and then drawn back, and the short ears afterwards combed out with a wooden comb.

This machine has an open drum, which was made with only six beaters, but the addition of six more has proved of considerable utility. The maker is a Mr. Axton, who has made several other machines in the neighbourhood.

The increase of velocity appears to be about 70 times, and is produced by two wooden wheels and two cast-iron pinions.

Mr. Crane, of Cerne Abbas, has a thrashing machine, which was built by Mr. Baker, of Exeter. Two or three horses are employed, but seldom more than two. There are six wheels, all of which are cast-iron, and arranged as follows:

	<i>Teeth.</i>
Drum pinion	16
On upper fluted roller	67—18
	70—10
Horse-wheel	92

The velocity of this machine is increased by the wheels nearly 150 times, and the horses draw by chains, from a point $8\frac{1}{2}$ feet from the centre.

The iron horse-wheel is $5\frac{1}{2}$ feet diameter, with teeth $1\frac{1}{4}$ inch deep, and $1\frac{1}{8}$ thick in the centre. The teeth of the wheels within the barn are $1\frac{1}{2}$ inch from centre to centre, and one inch deep, and no repairs have been required in the four years that the machine has been in use.

The drum has four beaters, and is four feet long; the intervals between the beaters have been closed up with plate-iron since the machine was erected; because it was found that an open drum broke the straw too much. The lower feeding cylinder is turned only by being pressed upwards against the other, by levers and weights. Hogslard is applied to the teeth occasionally, in this and other thrashing-mills.

Mr. Crane's servant, who attends the machine, says they have thrashed 15 sacks of wheat from ears, and pull-tails (which remain after the best straw is drawn for reed-thatching) in a day, all being put through the machine twice. But he observes, that this is done scarcely for any other reason than to get off the *dust* (or chaff), very little of which comes off the first time, though but a small quantity of wheat remains in the ears.

From six to seven quarters of barley are thrashed in eight hours, and 40 bushels of wheat from the straw at length.

Mr Richard Bridge, of Langdon Farm, near Bea-
minster,

minster, has a two-horse thrashing machine, which cost 60*l.* and was built by Mr. Coombs of Beaminster.

One man and two women are employed in thrashing, and Mr. Bridge says, that 100 bushels of barley or oats, 48 bushels of wheat from the sheaf, or 80 bushels from the ears only, and thrashed twice over, are generally procured in a day of eight hours. In this gentleman's opinion the machine is preferable to many which require the power of four or six horses; and he observes, that blind horses are the best to be used in thrashing machines, as they walk very steady, and will go even without a driver.

Mr. Henning of Weymouth, has a two-horse thrashing-mill, which was made by Mr. Maggs, and cost about 50*l.*, and about 20*l.* more for the scaffold, and shed over the horses, &c. The horses draw by whipple-trees from a point seven feet seven inches from the centre of the horse-wheel.

The horse-wheel consists of eight segments of cast-iron, with 27 teeth in each, which are three inches wide, $1\frac{1}{4}$ inch deep, seven eighths of an inch thick at the bottom, and five-eighths at the points. The segments are about four feet long, measured on the outside of the wheel, and the iron below the teeth is one inch thick on the inside of the wheel, and three quarters of an inch thick on the outside (being bevelled outwards), and they are screwed to the wood with three screws each. The intervals between the teeth at bottom, are equal to their thickness. The horse-wheel turns a pinion of 11 inches diameter with 18 teeth, $1\frac{1}{8}$ inch deep.

The shaft which carries this pinion is wrought-iron, two inches square, with a spur-wheel on the end of it, with 34 teeth, two inches wide.

The spur-wheel on the drum axle, is five inches diameter,

diameter exclusive of the teeth, which are one inch and a quarter long, and five eighths of an inch thick at bottom. The wheels are arranged as below :

<i>Teeth.</i>	
Drum pinion	18
	78—25
	34—18
Horse-wheel	216

The velocity of this machine is increased 98 times, and it works to Mr. Henning's satisfaction; but it did not thrash clean in all cases, till the pinion with 18 teeth was substituted for a larger one that was in the original machine. The drum is three and a half feet long, and has eight beaters, which are wood, faced with iron, in the usual way, and the intervals are closed with wood. It was at first open, and then broke the straw very much. The beaters rise above the boards about five eighths of an inch, and the drum is two feet four inches diameter, being composed of wood screwed upon three circular frames of cast-iron. Several other machines have the drum on a similar plan; and it seems to be a very good one; the principal materials being substantial, unalterable, and easily connected together. The lowest of the fluted feeding-cylinders is turned by additional wheels about one-third of the pace of the drum. The upper cylinder is turned merely by the pressure of its own weight on the lower; and Mr. Henning thinks, that this is in every respect the best method.

The fluted cylinders are three feet long, with 10 grooves in each, seven eighths of an inch deep. The drum passes within a quarter of an inch of the apron, which is composed of two pieces of cast-iron, with teeth, or bars, two inches apart, half an inch deep, and one-quarter of an inch wide. The apron extends 22 inches in a circular form,

form, from the feeding cylinders, each of the pieces being 11 inches wide. It is elevated or depressed, by four screws, each of which has a knob, or shoulder, which prevents the apron from sinking, but admits its giving way upwards, if a stone or other obstruction get between it and the drum.

The beaters in this machine, pass about three-quarters of an inch from the fluted cylinders; the boy who attends the horses, has a seat above the horse-wheel, by which means he can make them work regularly; and when it is desired to stop the machine, it can be instantly done by ringing a bell which is hung near the horses, for that purpose.

The machine is oiled twice a day, by putting the oil in holes above the pivots, which are made for that purpose.

Mr. Henning had a four-horse thrashing-machine at Pokeswell, which answered very ill; and he seems to think the smaller ones generally preferable; but as the machine above described, is said to thrash only about 30 cwt. of wheat-straw in seven hours, it cannot thrash much cheaper than the flail, whatever may be its merits in other respects.

J. Wood, Esq. of Osmington, has a one-horse thrashing-mill. It has only four wheels, of which the large ones are wood, and the small ones cast-iron. The drum has eight beaters, which move with no very great velocity. It is managed by one man and two girls, but it thrashes very slowly, and a little fuller feeding than common, will entirely stop the machine.

Mr. Strong, of Powerstock, has a four-horse machine, which was built by Mr. Baker, of Exeter. It has an open drum with six beaters, and thrashes from 30 to 35 sacks of barley, and as many of pease, in eight hours. It will thrash

thrash 50 sacks of wheat in the same time, from cars only put twice through the machine.

Mr. Nichol's machine at Maiden Newton, thrashes 26 bushels in four hours. Three horses are employed, and the machine was built by Mr. Baker, of Exeter.

The Rev. Mr. Dampier, has a thrashing machine, which was built by Mr. Maggs. It is worked by two horses, who draw at eight and a half feet from the centre of the horse-wheel, by whipple-trees and chains. The horse-wheel consists of cast-iron segments, screwed to the timber. Eight of these with 21 teeth in each, make up the whole circumference.

The wheels are thus arranged :

Drum pinion 14 . . .

78—25

50—21

168

Increase of velocity 89 times.

The drum is closed; it has eight beaters, and is 28 inches in diameter. Mr. Dampier bestows much praise on this machine, which he says thrashes very clean, and after the rate of two sacks of wheat per hour, or 56 bushels a day, which by the flail would cost 28s. and certainly not more than half that sum by the machine. It is not easy to obtain correct accounts of the quantity which may be thrashed by machines; and very much depends on the manner of feeding them. But it appears rather singular, that the small comparative velocity of Mr. Dampier's machine, should be sufficient to thrash out a greater quantity of corn than that of Mr. Crane. It is probable, however, that the latter having only four beaters, will not admit of a full feeding; for though worked by only two horses, its velocity is the greatest of any yet mentioned.

Mr.

Mr. Garland, of Bere Regis, has a thrashing-mill which has been erected many years; the horse-wheel and two others are made of wood only, but the pinion on the drum axle is iron; the drum is closed, and has six beaters. This machine is said not to spoil the straw; its motion is not rapid, and it is generally found necessary to thrash the straw of barley, &c. twice over. Labourers are scarce at Bere, and this machine is found useful, because it can be managed mostly by women. The apron of this machine consists of planks $1\frac{1}{2}$ inch thick; they are grooved or fluted, and appear to answer the purpose as well as iron.

At Cranborne, L. Tregonwell, Esq. has a thrashing-mill, which was built by Mr. Hopgood of Salisbury. It was intended for two horses, but one horse is said to be able to work it without any extraordinary exertion. The point of draft is six feet seven inches from the centre of the horse-wheel, which has 196 teeth, $2\frac{1}{4}$ inches from point to point. The segments of cast-iron of which this wheel is composed, are fastened down to the timber by two screw-pins in each.

The pinion turned by the horse-wheel has 28 teeth, which are pointed at the end, and rather more than $2\frac{1}{4}$ inches from point to point. The wheels are arranged as below :

	<i>Teeth.</i>
Drum pinion	10
	24—28
Horse-wheel	196

The increase of velocity is scarcely 59 times.

This is an open or skeleton drum, two feet seven inches long, and two feet diameter; the axle is wood, six inches diameter, through which pass a kind of spokes which support eight beaters.

The

The feeding cylinders are wood only, with 12 flates or grooves in each, and are $2\frac{1}{4}$ inches diameter. The upper one is turned by a strap, which runs in a groove fixed all round the wheel with 84 teeth, and by means of a smaller wheel the feeding rollers revolve almost as fast as the drum.

The apron is cast-iron with square ended teeth, an inch from centre to centre; it extends two feet from the feeding cylinders, but the part most distant is wood cased with thin plate iron. The drum runs from one-fourth to one-eighth of an inch of the apron.

It thrashes barley and wheat very clean, but it is sometimes necessary to put oats through twice. It is said to have thrashed eight quarters of wheat in eight hours; but it breaks the straw considerably.

At the assumed pace of two miles an hour, the horse will make 256 revolutions in that time, and the drum will revolve 251 times in a minute, the velocity of the beaters being only 1570 feet in a minute.

The Dean of Salisbury has a thrashing-mill at St. Giles's, which was formerly worked by hand only. It was made by Mr. Tunstal; but a one-horse power has been attached to it by Mr. Hopgood, and the Dean's bailiff has a great opinion of its merits. He observes, that it will generally thrash 28 bushels of wheat in eight hours, the expense of which is not more than half as much as thrashing by the flail: on one occasion 40 bushels of wheat were thrashed in ten hours.

The machine is very similar to that belonging to Mr. Tregonwell; and it is worthy of remark, that a one-horse power of such small velocity should thrash clean, and at a cheap rate, while Mr. Henning's four-horse power was found nearly useless.

It may also be observed, respecting Mr. Tregonwell's thrashing-

thrashing-mill, that if the horse-power were laid aside, and the machine turned by a handle, fixed to the wheel with 84 teeth, after the rate of two seconds for each revolution (which is a moderate pace), the drum will revolve 252 times in a minute, which is as fast as its present pace by means of a horse.

Mr. Spear, of Monkton, near St. Giles's, has a four-horse thrashing-mill, which was built by Mr. Greensit, of Quidhampton, near Salisbury. The horse-wheel is 12 feet wide, and is composed of 12 segments of cast-iron, with 21 teeth in each. The arrangement of the wheels is as below :

	<i>Teeth.</i>
Drum pinion	11
	112—23
Horse-wheel	252

Increase of velocity 111 times.

The horses walk in a circle of 20 feet diameter ; and as Mr. Spear believes their pace is about two miles an hour, the drum will make 311 revolutions in a minute. The drum is three feet in diameter, and has only four beaters, the velocity of which is about 2985 feet in a minute.

The fluted feeding-cylinders are about three inches in diameter, and four feet four inches long. The lower one is turned by a chain, which runs in grooved wheels, of which there are three on the shaft, near the wheel, with 112 teeth, and three more on a small shaft, which is connected with the end of the feeding-cylinder by a universal joint. The chain is kept in a proper state of tension by a lever and weight, which supports the shaft and the three wooden wheels last mentioned.

By putting the chain into different grooves, it will be easily seen that three different degrees of velocity may
be

be given to the feeding cylinders, which is useful in affording the power of thrashing clean when the corn has not been well harvested; or in thrashing a greater quantity in the same time, when the corn may be separated from the straw with more than usual facility.

The middle speed of the feeding-cylinders is about twice as fast as that of the wheel with 128 teeth; and the upper cylinder is turned by means of two small wheels, which are, in my opinion, perfectly unnecessary. The pivots of the drum run on friction wheels, which is an unusual circumstance, but will, of course, lessen the power of resistance in the machine.

The horses are attached to pieces of timber descending from the horizontal shaft to each side of the shoulders; but the maker, aware that horses work unpleasantly in this method, has obviated the inconvenience by means of four pulleys, which carry a chain above the horses' shoulders, and through the bottom ends of the descending pieces of timber. By this means the horse draws by both ends of a chain, which, by slipping backwards and forwards, presses equally against each shoulder. A rope would be better adapted to this purpose than a chain; but in other respects the contrivance seems worthy of universal adoption.

The machine cost Mr. Spear 120 guineas, beside the round-house, and it works to his entire satisfaction, thrashing sometimes five or six sacks of wheat in an hour, and from two and a half to four quarters of barley.

Mr. Spear calculates the expense of thrashing as below:

Two

Two men, ...	£0	3	0
Four women, ...	0	2	8
A boy, ...	0	0	6
Four horses, ...	0	12	0
The machine is supposed to work 100 days in a year, and is oiled every hour while at work. The expense of oil, repairs, inte- rest of capital, &c. per day's work, about	0 2 10		
Total expense, ...	£1	1	0

Mr. Spear thinks it will scarcely ever thrash less than 30 sacks of wheat in seven hours, which, at 6*d.* per bushel, would cost 3*s.*, or nearly three times as much as by the machine.

If Mr. Greensit's machines are in general capable of thrashing with as much expedition as that of Mr. Spear above described, they are well worthy of the attention of agriculturists, and are much superior to such as have been adopted in most parts of this county.

As the quantity of corn here stated to have been thrashed in an hour, is certainly a very large one, it is highly probable that the feeding must be performed at the rate of an ordinary sheaf of wheat in every twelve seconds.

Mr. Shaw, of Spettisbury, has a thrashing-machine by the same mechanic as that of Mr. Spear's, but the drum is shorter, and the quantity of corn thrashed in a day is considerably less.

Mr. Hill, of Tarrant Crawford, has a thrashing-machine which is either worked by two horses or by water: its velocity is much the greatest when worked by water. It will thrash about eighteen sacks of wheat in eleven
DORSET.] M hours,

hours, but not always so clean as is desirable when horses are used.

The increase of velocity appears to be about 70 or 80 times.

Mr. Daw, near Evershot, has a thrashing-mill which belongs to the farm. It has six wooden wheels, which appear to increase the velocity about 80 times. The drum is an open one, $3\frac{1}{2}$ feet diameter, and the lower fluted cylinder may be depressed by treaders, when it is desired to draw back the straw for reed-thatching.

Mr. Bridge of Kimmeridge has a thrashing-mill which cost, without the shafts for the horses, 45*l*. The drum is an open one with six beaters; and the velocity is increased by means of six wheels. Mr. B. says it is too hard work for two horses.

Mr. Henning, of Frane farm, near Dorchester, has a thrashing-mill which is worked by water, but it does not thrash to his satisfaction. This it is believed is the only machine in the county in which the straw passes *under* the drum, and is here mentioned, that other mechanics may consider whether making a machine turn *backwards*, is not a likely means of spoiling it entirely.

The thrashing machine at Mr. Wolstenholme's at Bexington goes by water, but there is said to be no water at all for more than three or four months in winter.

Mr. Banger of Waterson has a machine which is worked by six horses: it has an open drum, and thrashes very clean, though the beaters pass about an inch distant from the apron. This and another belonging to Mr. Balson of Athelhampton, on a similar construction, were made by Mr. Geekie.

There are several other thrashing-mills in the county, but in all probability they are much like some of those
that

that have been described. The larger kind have in most instances a rake, which carries the straw forward and separates it more completely from the corn, which is scattered amongst it as it comes from the drum. Many have also a wind-fan to blow away the principal part of the chaff in the time of thrashing, and these are doubtless very useful additions to such machines as employ four horses or more, but in other cases their utility appears very problematical.

Winnowing-machines are in pretty general use, and are mostly of the kind made by a Mr. Bewley. Some of them are said to have cost no more 6 or 7*l.*, but in all probability new machines would cost much more at this time. The corn falls on a coarse and a finer sieve, and the wind being made to pass between and through the sieve, carries away the chaff.

The bottom of the corn-box is connected with the sieves in the same frame, and as the whole is made to move backwards and forwards by the machinery, the corn descends on the sieves and passes through them with tolerable regularity, and afterwards slides down a screen, which is fixed in most cases, though in some instances it is moveable. The screen takes out some small seeds, &c. but none of these machines will clean the corn perfectly the first time. Mr. Bewley's winnowing-machines are said to answer a very good purpose; but the most eligible means of separating the best corn from the worst, is to cause it to descend from a narrow opening in the corn-box or hopper, about nine or ten inches through a strong stream of wind, and dividing it by the edge of a board.

SECT. VI.—CHAFF-CUTTERS.

THESE are of various kinds; and, in addition to the ordinary sorts, which are probably in use all over the kingdom, there are several of the more modern and expensive kind. Mr. Ottan of Wootton Fitzpaine, has a chaff-cutter which has three knives fixed to the spokes of a cast-iron fly-wheel: it is said to have the rare merit of cutting the straw so regularly and perfectly as to require no sifting.

Mr. Hill of Tarrant Crawford, has a chaff-cutter with two knives attached to the thrashing machine.

The feeding cylinders are turned by a spiral that works in the teeth of two wheels at once.

Mr. Banger of Waterson, has one of Mr. Lester's chaff-cutters, which is said to work very well. It has but one knife, which is fixed on a vertical fly-wheel. The straw is carried forwards on sackcloth extended over two rollers, which are turned forward by a crank and a ratchet-wheel.

Some of Mr. Pasmore's patent chaff-cutters are introduced in this county; but they do not appear to be much better or worse than most of the others. It is made very substantial, by the principal parts being composed of cast-iron; but the feeding cylinders, being firmly fixed in their places, instead of pressing on the straw by a regular weight, seems a peculiar defect in this implement; and the consequence is, if too little straw be put in the box, the feeding rollers will not draw it forward at all; and if too much be put in, the pressure and friction are so great as to cause a very considerable waste of power.

SECT.

SECT. VII.—WAGGONS, CARTS, &c.

THE Dorsetshire waggon is a light, good sort of vehicle, similar to that of Berkshire, but the Dorsetshire people challenge it as their own.

These waggons differ but little from those used in Bedfordshire, and many other places, except that they appear something wider in the body, and the sides are very low at the fore-part; but rising behind so as to carry the over-hanging raves clear above the hindmost wheels. The wheels are often set more than five feet apart: at Fifehead Neville the ruts were five feet six inches asunder. The waggons are in most cases neatly and firmly put together, and cost from 35*l.* to 45*l.* As nearly all the hay and corn in the county is carried on waggons, this branch of the wheel-wright's business is a very extensive one, and the maker's name is as regularly painted on the back part of the waggon, as the owner's name is on the fore part.

The reason alleged for constantly making use of waggons in harvesting the corn, &c. is the extreme inconvenience which the horses experience in coming down long and steep hills, with the pressure of a great part of the load upon their back, and the continual resistance necessary to be made to the cart's motion. When a waggon descends a hill, one wheel is locked, or chained, of course; and, instead of a cast-iron slide for the wheel to rest upon, the tire is made an inch and a half thick in one place, which part being made to slide along the ground, is soon reduced to the same thickness as the rest of the tire.

At Bexington farm is a Suffolk waggon, the principal
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beam

beam on each side of which is not continued from one end of the waggon to the other (as is the most common as well as the most substantial method) but is jointed in the middle, for the purpose of making more room for the fore-wheels in turning to the right or left.

At this farm there are also some of the north country, or Scotch carts, which have a frame to lay over the body of the implement, extending on all sides, for the purpose of supporting a sufficient quantity of corn, hay, &c. Some of these carts have patent cast-iron naves, which contain holes around them to insert the spokes, and seem to be well calculated for durability.

There are, in all probability, no one-horse carts in this county; nor indeed any thing which is called a cart, unless those used by butchers, gardeners, &c.

The carriages which are used in carrying manure, earth, &c. are called *dung-pots*, or *puts*, and are not unlike, though rather smaller, than the carts of Bedfordshire, and other neighbouring counties. The shafts of these dung-pots are attached, in general, to the axle, and the body of the cart or pot, is kept in its place, by an upright flat piece of timber, at the centre of the fore-part of the body, which passes through a plank, and the hindmost part may be lowered more or less, as is found necessary in emptying manure, &c. by putting a pin into the various holes in the flat piece of timber before mentioned.

Mr. Pittfield of Symondsbury, and some others near Bridport, use *slid-pots*, or sliding carts, for removing earth, &c. They are more than a yard long, but less than a yard in width, and are framed with three upright pieces on each side, which descend some distance below the body of the *pot*, and are framed into the slides at the bottom.

These,

These, of course, are turned up considerably at the forepart, and the mode of emptying these implements is, to overturn them.

At Iwerne, J. B. Bower, Esq. has adopted a new plan of removing manure, mud, &c. by means of three large wooden-wheeled barrows, composed of thick single boards for the sides. There are three wheels of about 20 inches diameter to each barrow, and all the three barrows carry as much as one dung-pot. Three horses are employed in this mode of conveyance, and the barrows are overturned to empty them.

The wheel-barrows of this county are of a more simple construction than is the case in some places: the sides are made of a single strong board, to one end of which the wheel axle is attached, and the other, being properly diminished, forms the handle. A kind of hand-barrow is also used in some places for carrying manure, earth, &c.; they consist of two handles connected together by a kind of hedge-work of hazel, and made hollow in the middle.

**SECT VIII.—WEIGHING-ENGINES, SOWING-
TROUPHS.**

MR. BRIDGE, of Winford Eagle, is probably the only gentleman in the county who possesses a weighing-engine, which certainly is, or may be made, a useful article for ascertaining the degree of profit that may be obtained by feeding cattle with various kinds of food.

The same gentleman has also a sowing-machine for all kinds of small seeds, which was made by Mr. J. Bennet, of Farnham, in Surrey, price 4*l.* to 5*l.* according to size.

The divisions of this machine are six inches and a half
M 4 apart,

apart, and the seeds find their way through small perforations in plates of tin or copper, which can be turned round so as to bring different sized holes in the metal plates over the larger openings in the wooden box.

Great regularity in delivery may be expected to be the consequence of the circular brushes, which force the seeds through the small perforations, and remove occasional obstructions. The brushes are fixed on a strong iron wire, which is turned by a wheel in the centre of the sowing-trough, the connection being made by means of four small levelled wheels.

The machine is driven by a man, and appears to be a useful contrivance for sowing small seeds.

SECT. IX.—HORSE DRAG-RAKES.

THERE are several of these in the county. Mr. Clapcot, of Whitechurch, has one which is eleven feet long, the teeth screwed in, and four inches apart. The machine has two wheels before, a yard high, and the rest of the Norfolk plough apparatus of course, which seems to be much admired in this county, though one wheel would generally answer the same purpose.

It employs a horse, a man and a boy, and seems to make very good work. There are handles for the purpose of assisting in turning at the land's ends, and for drawing the rake backwards to disengage it from the straw, &c. which is generally left in regular lines across the field.

SECT. X.—MISCELLANEOUS ARTICLES.

MR. CLAPCOT has a *horse-slide* or sledge, with a loose frame work to fix around it, to make it capable of carrying a small load of hay from boggy meads, which would sometimes be much injured by the use of waggons.

Mr. Spear has a kind of *cribs*, which he considers as well adapted to prevent sheep from wasting their hay, by treading it under their feet. They are of a semi-cylindrical form, and consist of a kind of bows or hoop, each end of which is inserted into the frame which rests on the ground. The bows are five or six inches apart, and the frame is 18 or 20 inches wide, and three or four yards long.

Sheep cribs of a similar construction are used near Sherborne, and in some other places.

The Dorsetshire, or *flake hurdles*, are from four and a half to six feet long. They consist almost invariably of ten stakes, which the hurdle-makers drive into augur holes, that are made for that purpose in a piece of timber, which is supported at a convenient height from the ground by other pieces of timber. The hedge-work of these kinds of hurdles, consists of hazel either whole or split, according to its age.

The abundance of hazel-wood in all chalky districts, renders this kind of hurdles the most economical and useful that can be made. They cost from 8s. to 10s. a dozen, and great numbers of them are made at Tarrant Gunville, and other places in the neighbourhood of Cranborne Chase.

Besides the common spades and shovels, there is a kind of shovel of a triangular form used in the western part of the county. The plate is ten or eleven inches wide,

wide, and twelve or thirteen inches long from the socket in which the handle is put to the point. The handle is long, and is turned upwards considerably, to prevent the necessity of much stooping in the use of it.

• The hedging-bills used in Dorset and the neighbouring counties, are not straight along the edge with a short hook at the end, like those used in Bedfordshire, but are made with a considerable and regular curvature, all along the edge, much like the hooks that are often used for cutting pease.

At Stockland, a kind of mattock or hoe, of nearly an oval form, but more pointed at the end, is sometimes used for hoeing and moulding up potatoes, &c.

CHAP. VI.

ENCLOSING.

IN the chalky district there are many open downs, and such as are enclosed are often in portions of fifty or a hundred acres each; there are also several open fields, which are cultivated in a three, or a four years course of cropping, consisting almost entirely of white corn, except in the first year of the course, which sometimes produces turnips, and not unseldom is occupied in a naked fallow.

The heath land is almost entirely unenclosed, except the parts occupied by fir plantations, which are surrounded by sod banks, with furze sown on the tops of them; and this is perhaps the best kind of fence that can be afforded for enclosures on a soil so exceedingly barren and unimprovable.

The open parts of the Vale of Blackmoor, and the rest of the clay district, are principally commons, and these (as observed by Mr. Claridge) are generally stinted, after the rate of either one horse, or two beasts, to what is termed a *leaze*; the horse leaze was estimated in 1793 at 30*s.* per annum, and half that sum for a beast.

With respect to the state of the fences, and the timber, the size of the fields, commons, &c. very particular observations having been made relative to nearly all the parishes in the county, it appears that the unenclosed parishes amount to about 100. About a score of these are in the
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the clay districts, and possess commons of 20, 50, or 100 acres, but seldom any arable land in the same state.

Cases by Act of Parliament.—Stockland was enclosed in 1809; the common consisted of 2000 acres of poor land, and much of it will be converted into tillage; every proprietor made his own fences. The land remains subject to tithes, which is not favourable to improvement.

Warmbrook is lately enclosed; the common contained 600 acres. The fences, which are composed of withy, ash, hazel, and beech, cost 10s. a rope, (a pole?) Some of the roads were made at 12s. a rope. This is high land, and bears oats better than other kinds of corn.

The gravelly common at Hawkchurch has been lately enclosed with fences of withy, or willow, on each side of a bank, which is thrown up four feet high, and six feet wide. The quicksets are often put in a foot apart, which is more than double the usual distance of the white-thorn quicksets in Bedfordshire. The middle of the banks are often occupied by beech, ash, and other trees, two feet asunder.

The expense of the Act of Parliament, Commissioners, &c. for the enclosure of Beaminster, amounted to 2*l.* per acre, exclusive of fences. Seven hundred acres of common land were enclosed by an Act obtained in 1807: persons having common rights used to let them for half-a-crown a year; the allotments for these were more than half an acre each, and many of them were sold for 20*l.* a right, and some of the ground is now let for near 5*l.* an acre.

At the enclosure of Broad Mayne, one-fifth of the arable, and one-eighth of the green land, was allotted for tithes.

Gilling-

Gillingham is lately enclosed, and the enclosure was attended with some riotous proceedings. The poor were in the habit of keeping geese and cows on the commons.

The downs have been lately enclosed at Winterborne Abbas, and some parts have been pared and burned.

Acts have passed for the enclosure of Litton Cheney and Walditch; and several other parishes, such as Abbotsbury and Stalbridge, will soon undergo the same improvement.

Canford-heath has been lately divided by Act of Parliament, and extensive plantations of firs, of various kinds, have been made. The fences consist of sod walls, with furze sown on the top of them. The heath is a very poor black sand and gravel, bearing little besides ling. A new Cow-house has been built on the heath, between Canford and Poole, and is surrounded by a few cultivated fields; but the general opinion seems to be, that the heaths are too poor, and the means of improvement too remote, to afford any prospect of their being cultivated to advantage.

Fences.—A part of the open fields next to the downs, are often fenced with low dead hedges, on a broad sod bank. Hedges of this kind, made of hazel, and sometimes with real hedge hurdles, will last three years, if repaired with proper attention. The price of making the bank is said to vary from 8*d.* to 15*d.* for seven yards; the hedges cost, in wood and workmanship, 2*l.* 3*d.* per rood of seven yards. Barred gates cost 20*s.* each, and an inferior kind (which are called *stavered*) 11*s.* a-piece.

The gates in this county are generally very well made.

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The head-pieces by which the gates are hung, are sometimes forked, in which case one of the forks serves in some measure as a brace, to keep the gate from sinking; but in general this principal part is sawn out, so as to project four or five inches underneath the upper bar, to prevent it from bending downwards.

In some places, very awkward and disagreeable substitutes for gates are made use of: they consist of three flat planks, the ends of which are inserted into mortises in both the posts, and fastened by wooden pins.

In the Isle of Purbeck, and about Upway, and other places along the coast, where stone is much more plentiful than wood, the fences consist of walls of loose stones, and sometimes they have a few bushes under the topmost stones, to prevent the sheep from climbing over them.

In a few cases the fences are made by setting flat stones up edgeways. Stiles are often made in this manner, and principally with the view that they may not be carried away and burned.

The hedges in some places consist of thorn, but hazel hedges, spread to a considerable width, are very general on the chalky soils; and in many other parts of the county, they are frequently mixed with dogwood, maple, &c. and sometimes consist entirely of privet.

Mr. Bridge, of Winford, is of opinion, that hedges might be raised on many parts of the downs, by planting three rows of white-thorn sets, of four or five years old, and keeping them low by continual clipping. He has some good fences on high land, which were planted twenty years ago. The north-western sea breezes are so destructive to all hedges which are exposed to their influence, that many people thought Mr. Bridge's would
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not grow ; and this would probably have been the case, had he not adopted the plan of keeping them low and thick by clipping : an idea that was originally suggested to Mr. Bridge by His Majesty, in some of his excursions from Weymouth.

CHAP. VII.

ARABLE LAND.

SECT. I.—TILLAGE.

IN entering on the detail and consideration of this most important subject, it is necessary, more so perhaps than in what relates to most other points, carefully and closely to advert to the nature of the soil, on which the various operations of tillage are performed; and likewise, though not in such a degree, to the climate of the particular district.

Indeed it may be fairly laid down as an axiom, in discussing agricultural subjects, and in estimating the comparative utility of agricultural practices, that, unless circumstances are minutely, accurately, and fully explained, unless they are considered in all their relations and bearings, and their influence on the practices followed or recommended, duly appreciated, it will be absolutely impossible to draw any practical inference. In the different arts, where man is the principal or sole agent, and where the nature of the material worked upon, is completely known, and subject to no influence or change, such practices and operations as have been found to succeed and prove beneficial, in one part of the kingdom, or under the management of one manufacturer, may safely, and with advantage, be generally recommended to, and followed by all the manufacturers of the same article: but it is very different with the operations of agriculture:

agriculture: an almost infinite variety of circumstances are to be taken into the account, many of which cannot be accurately and clearly described; if, therefore, any of those circumstances are omitted, or if any of them are described in ambiguous or vague language, much mischief will ensue.

Besides, in manufactures, the good or bad effects of any particular practice, or mode of management, can be traced directly and undoubtedly to the practice, or mode of management in question, and fixed on them, as the real and undoubted cause. Here also it is very different in agriculture: Nature in various ways, and by various means, often imperceptibly to the closest and keenest attention, is operating either with or against the farmer; so that he cannot safely and certainly ascribe the effects which he witnesses or experiences, to his own operations, and still less can he say how much has been done by Nature, and how much by himself.

If we advert to these considerations, we shall be able to trace the cause of that great variety, and even opposition of opinion, which in agriculture, more than in any other art, exists with respect to the best modes of managing land. To apply this more particularly and directly to tillage, the subject now under consideration, take the opinion of farmers who live in the same parish: one will recommend the practice of ploughing deep, another will reprobate it, as highly injurious. He who wishes to be instructed, either for the purpose of detailing the agriculture of the particular district where his inquiries have been made, or for the purpose of regulating his own practice by the result of his inquiries, is puzzled, and is completely at a loss with respect to the comparative advantages or disadvantages of deep ploughing. If, however, he pursues his inquiries, and asks precisely what is

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meant by deep ploughing, perhaps the opposition of opinion will turn out to be merely verbal: by deep ploughing, which one farmer followed and recommended, he meant ploughing to the depth of five or six inches; by the deep ploughing, which was objected to by the other farmer as prejudicial, probably ploughing to the depth of nine or ten inches was meant. It may be, however, that by deep ploughing they both meant the same thing; still, before the inquirer can satisfy himself, he ought to learn the nature of the soil, and more particularly the nature of the subsoil; the time of the year when deep or shallow ploughing was recommended to be followed; the crop for which it was intended directly, and the crops in the rotation which were to be followed; and several other circumstances of comparatively less moment.

Even yet, no sound and general inference can safely be drawn, with respect to the comparative advantages of deep and shallow ploughing, unless the results stated to have been the consequence of each mode of tillage can be clearly traced to it; and this cannot be done, unless the experience of the effects of each has been long and carefully registered. Let us suppose that the advocate for deep ploughing brings forward what he deems a decisive instance and proof in its favour: a field, ploughed very deep, which, when compared with another field of exactly the same kind of soil, ploughed shallow, produced a much greater produce. A cautious and inquisitive mind will not be satisfied, but will inquire whether in all other respects, during the particular year adverted to, the management was the same; and if it was, whether the management, manuring, and course of crops, for several previous years, were similar in both fields; if these inquiries are answered in the affirmative, there is yet another

other important and material question to be put, and satisfactorily answered, before any legitimate conclusion can be drawn with respect to the comparative utility of deep and shallow ploughing. Was the year in question a rainy or dry year? Whichever way this question is answered, it creates fresh difficulties in the way of deciding the point in dispute; because it necessarily opens up another question in agriculture not yet settled, viz. whether deep or shallow ploughing has a greater tendency to keep land moist or dry? If the year adverted to was a rainy year, that is, if more rain fell than is advantageous to vegetation, then the superior produce gained from the field that was ploughed deep, *may* be traced by him, who is disposed to question the advantages of deep ploughing, abstractedly considered, to the climate of that year and deep ploughing conjointly; and the only inference he will feel himself justified in drawing, will be, that in wet years deep ploughing is good, in so far as it prevents the bad effects of too much moisture; on the other hand, if the year in question was found to have been remarkably dry, then, as the point respecting the effect of deep ploughing to keep the land moist or dry is not decided, the superior produce may more fairly be ascribed to the climate of the year, and the deep ploughing conjointly, than to the latter circumstance alone.

It is, therefore, absurd and useless to endeavour to maintain generally, and abstracted from the consideration of circumstances, the advantages either of deep or shallow ploughing: the positions laid down ought to be much modified and qualified, and to go no farther than to maintain, that with such soils and subsoils, in such a climate, with a reference to such a crop, or succession of

crops, deep or shallow ploughing will be beneficial or otherwise.

As a large portion of the land in the county of Dorset lies on chalk, and is by no means of a deep soil, a strong and very general opinion prevails in favour of shallow ploughing, or, to speak more precisely and correctly, deep ploughing is generally deemed highly prejudicial—the depth of the furrow seldom reaching, and scarcely ever exceeding, five inches. It is often maintained, that every practice in agriculture, however absurd it may appear, and however much it may contradict the experience of the farmers of particular districts, must have had its origin in some good reason, or at least in some appearance of reason, otherwise it never would have been resorted to and established. Perhaps this opinion rests on too correct and liberal a judgment of the wisdom of our ancestors, and gives them credit for more attention to the dictates of sound experience, than we know is displayed by many agriculturists of the present day. However this may be, it is by no means difficult to discover and point out the reasons which established shallow ploughing in the county of Dorset. Speaking generally of its soil, it may be divided into clay, calcareous loam, and stone-brash; now, on all of these soils, the nature of the respective subsoils would render deep ploughing not merely a difficult and laborious operation, but the immediate effects of deep ploughing would be the deterioration of the crops.

As cross-ploughing cannot be performed unless the furrow be made pretty deep (that is, deeper than five inches), it is not very often resorted to in Dorsetshire, even for a crop of turnips.

There are a few people in this county who practise a kind

a kind of half-ploughing, which is called *raftering* or *ruftering*. The practice was probably derived from Wiltshire, many instances of it being observable all over Salisbury Plain, and from Salisbury it has made its way as far as Blandford, though it is far from being a general practice even in that part of Dorset. It consists in ploughing the clover-ley very shallow, and covering, as nearly as possible, the unploughed part by the furrow slice, which is generally six or seven inches wide.

This kind of ploughing is defended on the idea that it effectually destroys the couch-grass, without much loosening the soil, as the roots of this weed, on chalky soils, scarcely penetrate more than an inch deep: this mode of reasoning would be correct and satisfactory, if all the grounds were ploughed, taking it for granted, that the ploughing, though shallow, passed beneath the roots of the couch-grass; but it does not apply to a kind of ploughing, which leaves half the ground untouched; and which therefore on that portion of the ground, can have no effect in destroying the roots of the couch-grass.

It is practised by some as a kind of substitute for paring and burning; as much of the soil, together with the grass, &c. is capable of being subjected to the action of fire in this mode of tillage. The number of horses used in ploughing, varies, from two to six, but three or four are generally employed. There are several instances of oxen being employed in ploughing, &c. and the number in each team varies from two to eight.

Mr. Boswell of Piddletown, is said to be the first farmer who introduced the Norfolk practice of ploughing with two horses abreast into the county of Dorset: it is now adopted by Mr. Balson of Athelhampton, Mr. Bridge of Winford, and either wholly or in part, by a considerable number of intelligent farmers in every part of the county.

The propriety of ploughing, in all cases, with only a pair of horses abreast, has been long a matter of controversy; but my own experience (observes Mr. Bachelor), added to the observations made in this and other counties, inclines me decidedly to the negative part of the question. Scarcely any person of common intelligence will question the propriety of tilling light free working soils with a pair of horses, under almost every circumstance, or the making use of a similar team, in nearly all other cases where the ground has been once broken up. Horses always work more regularly, when employed in this manner, and walk faster. Instead of proceeding by fits and starts, (as is frequently the case when three or four draw in a line), there seems a kind of competition between them: at any rate, each of the horses necessarily performs his proper share of the work, and the expense of a driver may be saved, though that is not always the case, either in Dorsetshire or in other counties.

Mr. Boswell, jun. of Piddletown, ploughs with a pair of horses in all cases, except in breaking up ley ground. There are others who follow the same rule, with the exception of only the hardest and most flinty part of their clover-leys; while the occupiers of tough clay loams generally make use of four horses to each plough, even when their land is not become quite so hard as stone by the effects of drought, at which time they assert, a pair of very able horses could scarcely move the plough.

Those who persist in using only a pair of horses in each team, find it necessary to purchase very strong ones, such as are worth 100*l.* a pair, or even more in some cases, yet, in thus making a very proper use of the extra strength and capital thus employed, it must be remembered they are taking away the means from others.

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The breed of horses may perhaps admit of much improvement, but at present there is only a moderate portion of good ones, and the rest, consisting of young and old, weak and blemished cattle, are entirely unfit for double-horse ploughing.

Nearly all the land in the county which is sown with mixed seeds, is broken up for wheat in the very midst of summer, and consequently the risk of the land becoming very hard and stubborn, cannot be avoided, nor the two-horse system invariably adhered to, unless the farmer wishes to ruin his horses, and his own credit.

Were the inflexible advocates of this system to entertain a proper regard for consistency, it might be expected they would use only one horse in a plough in many parts of the country, where it is evident that not one half so much power is required, as is the case in moving hard clays and flints imbedded in strong loams.

The hilly situation of the arable land in many parts of Dorset, affords a sufficient reason for using more than two horses in a plough, even if there were no other. In the parish of Bettiscombe, a part of a field had been ploughed entirely down the hill, the horses walking up to the top with the plough turned up, and finding that, in all probability, the most laborious part of the operation.

It is a very common practice in this county, as well as in Berkshire and Wiltshire, to plough with three horses and a driver; two of the horses walking a-breast, and the third, drawing from a chain fixed at the centre of the whipple-tree, and walking on the unploughed ground near the furrow. From this it may be inferred, that the farmers are not actuated by any prejudice against two-horse ploughing, which can be performed at any time with no other preparation than taking away a horse.

Horses working a-breast without a driver, should be cross-reined in the same manner as coach-horses.

Mr. Claridge, in the Original Report observes, that the Dorsetshire ploughmen are remarkable for making crooked furrows: It is, however, an obvious fact, that the art of making straight furrows, is never likely to be brought to perfection on hilly and flinty soils, where it is sometimes necessary to have extra hands to keep the plough to its work.

On these observations of Mr. Bachelor, it may be remarked, that if more than two horses, and a longer and heavier plough than Small's (almost universally used in Scotland) are necessary on any particular soils, and at any particular seasons, it must be on flinty soils, composed partly of chalk and partly of clay, when it is necessary to break them up in the autumn, for wheat, after clover-ley: these soils, at this time, are certainly extremely difficult to plough; but as in Scotland, they do not exist, and as moreover the heat of the summer is not nearly so intense, and it is not the practice to break up clover-leys for wheat, Small's plough with two horses has not been tried under these circumstances.

Harrowing—Is frequently performed by three horses a-breast, each horse drawing one harrow; but there are some large *drags*, as they are called, which employ four horses.

Rolling—Occupies from one to four horses, the latter number being employed to draw very heavy rollers either of wood or stone, to make the chalky loams as close as possible previous to wheat sowing, or to level the surface of pastures.

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Scarifying—Is not much practised, unless that kind of it, which consists in passing the nine-share plough over the land intended for wheat, and which has been trodden down by sheep-folding, manuring, &c. The nine-share plough employs four or six horses, and opens the land something in the manner of a drill-machine: the same implement, with what are called duck-footed teeth, is sometimes employed in cleansing fallows, &c.

Ridges—Nearly all the strong soils of the county are in their natural level state, except when laid into narrow ridges of two or three yards wide, at the will and discretion of the farmer. This is a very favourable circumstance, on account of the facility it affords for cultivating all kinds of corn according to the drill-husbandry, and for preventing the injurious effects of stagnant moisture.

The high, wide, and crooked ridges of the midland counties, are lasting testimonies of the bad management of their original cultivators, and present formidable obstacles to the introduction of a perfect system of husbandry. On ridges, &c. Mr. Flott makes the following remarks:

“ The tillage necessary for the upland part of the county, is similar to that employed on other thin calcareous soils, and within the last few years much improvement may be observed, and a greater anxiety is manifested to clear the land from couch-grass, and other weeds. The depth of ploughing varies, according to the depth of the soils, and as the land is more or less retentive of moisture, so ought the size of the ridges to vary. In the bottoms between the hills, and in other places where the land lies wet, it is generally, and should always be ploughed into narrow ridges for wheat, either at, or previous to the time of sowing; and after the seed is deposited,

posited, and the land harrowed, the striking plough opens the furrow between each ridge, as also the cross furrows where necessary. Men or women are then employed to shovel every furrow with a tool made for that purpose, (called a *furrow shovel*), which gives to the field an appearance of neatness, not observable in some other countries. It is a good practice, and cannot be too much recommended upon all damp soils, where the general surface is nearly flat, particularly when sown with wheat in the autumn. The ridges contain from five to seven bouts each, but they are not necessary on dry absorbent soils."

Putting in Crops without Ploughing—Is not practised, unless with respect to wheat, which is often sown two months or more after the land is ploughed.

Drilling and Horse-hoeing—Have made little progress in this county at present. *Hand-hoeing* is very little in use unless for the turnip crop, and even in that case, (says Mr. Hott), "it is sometimes neglected, to the ultimate loss of the farmers, both in the turnip crop and in those which follow, and the lands in the hands of those farmers are generally in bad tillage, and their crops are much incumbered with charlock and other weeds; for upon the well hoeing and cleansing of all green fallow crops, does the destruction of those weeds depend."

Weeding—Is performed in a great measure by women with a *spud* (or *spitter*), or a hook. Yet the quantity of charlock which remains, and ripens its seed among the corn crops, is frequently very large, and must materially diminish the produce.

Striking the Furrows—Is pretty generally attended to
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on the clay soils; and where the land is hilly, many cross furrows are frequently drawn over both the wheat and turnip fields, to prevent the richest part of the soil and manure from being carried down into the vales; which is an effect that is said to take place in a remarkable degree, when that precaution is neglected.

SECT. II.—FALLOWING.

THE system of summer-fallowing, is very generally pursued in the Isle of Purbeck, and all along the coast to the borders of Devonshire: yet what is here termed a summer-fallow, is, in most cases, no other than a preparation of ley ground for a crop of wheat, by ploughing it three or four times, the first ploughing being given in June, or July, and sometimes as late as August.

It is rather a general practice, to sow ray-grass on the lands above-mentioned, to permit them to remain more than one year in that state, and to consume much of the produce by sheep-feeding; from which it will be seen, there are three other causes, beside the cold and tough nature of the greater part of the soil, that combine to render it a hopeless expectation, that a good crop of wheat should be obtained by a single autumnal ploughing.

The fallows in the Bridport district, are frequently planted with potatoes, or are sown with hemp or flax: they are, of course, ploughed in the winter, and early in the spring, to pulverize the soil, and destroy the weeds. The potatoes are mostly planted in drills, and are hand-hoed and horse-hoed. Perhaps the hemp and flax will, at some future time, be subjected to the same operations.

How

How far the summer-fallowing might be rendered unnecessary, by sowing clovers, unmixed with ray-grass; by mowing the grasses, instead of feeding them off; and ploughing up the lays, after lying only one year: or by continuing the present system, with respect to the grasses, and taking a crop of drilled pease, or beans in some cases, before the wheat, requires consideration and trial, and probably would be attended with success.

In the Vale of Blackmoor, the summer-fallows are sometimes of the same description as those which are used in Pyrbeck, &c., but they appear to be undertaken for the most part, with the view of cleaning the land. They are ploughed three or four times before the wheat is sown, and such as follow corn crops, are broken up immediately after the lent corn is put into the ground, as is the usual practice on clay soils in other counties.

The management of the small quantity of arable land which is found in this rich vale, is, on the whole, very irregular; as is the case in other dairying and feeding districts.

With respect to the chalky district, Mr. Ilott says, that in the neighbourhood where he resides, and around Blandford, summer-fallowing for wheat is entirely banished, (except in a few instances, where nothing but prejudice in favour of old customs can countenance such a practice), and no land is now to be seen under a naked fallow, except those fields intended to be sown with turnips, rape, &c. Upon farms where there are strong flinty loams in the bottoms between the hills, there is a practice with some farmers, of making what is termed a bastard fallow for wheat, as follows, viz. As soon as the first crop of clover, &c. is removed from the land (or if fed, at the same time) the land is *summer broke* (as it is termed in this county): when the surface becomes friable, the land is dressed.

dressed down, with the drags, harrows, &c. and as soon as it is convenient a second ploughing is given; it then lies till the time of sowing, when it is ploughed into narrow ridges. It is a good practice where wheat is taken upon such land after clover, and more is by this method done towards cleansing the soil, than by the old slovenly practice of a whole year's fallowing, with long intervals between each ploughing. Mr. Ilott himself, upon strong chalky and flinty loams, plants beans as a preparation for wheat, instead of fallowing for that crop, which he finds a good practice. He observes, that there is scarcely time to fallow both for turnips and wheat, while the latter is quite unnecessary, except upon cold wet-bottomed retentive soils.

Mr. Ilott adds, that since the introduction of the turnip system of husbandry, and the banishment of summer-fallows for wheat upon light soils, the wheat crop is not so subject to the red poppy and other weeds,

SECT. III.—COURSE OF CROPS.

THE county of Dorset has been remarkable, in former times, on account of the very large proportion of its arable land, which was devoted to the production of culmiferous or white-strawed corn crops. At present, the successive cultivation of wheat, barley, and oats, without the intervention of pulse, or cattle crops, is a practice that is not encouraged by any of the proprietors of the soil, nor defended by the most intelligent farmers; yet it is occasionally adopted by many who, nevertheless, freely acknowledge its impropriety.

The

The following observations on this subject are by Mr. W. Ilott, of Abbey Milton.

“ Upon the thin chalky soils around Blandford, and upon the hills in the neighbourhood of Abbey Milton, the course of crops with the best farmers, is a very judicious one. It is as follows, viz. where the soils are very thin, and the downs are short of feed, about one-seventh of the land is generally in sainfoin, and the rest of the arable is cultivated in the rotation of, 1. Wheat; 2. Rye, winter barley, or winter vetches, to be fed with sheep in the spring, and the whole followed by turnips, rape, &c.; 3. Barley or oats; 4, and 5. Artificial grasses, to be followed by wheat as before.

“ In other instances, where the land is of a stronger staple, it is thought better to manage it under the four-field system of husbandry, taking the wheat after the first year's clover-ley instead of the second, and generally keeping a part in sainfoin as before. But upon some farms, which contain pastures of a better quality than the downs, with a considerable portion of meadow-ground attached to them, there is less necessity for sainfoin, and a smaller portion of land is accordingly devoted to its culture.

“ There is a practice, which was introduced some few years since by Mr. White, of Abbey Milton, and is now become a very general one with many of the best farmers; it is, I think, well worthy of the attention of farmers in many parts of the kingdom. As soon as the early spring-feed upon the second year's clover-leys begins to decline, a part of the land is ploughed, and sown with rape and spring vetches, as a mixed crop, at the rate of about one bushel of vetches and two quarts of rape-seed per acre. This is performed at the end of May, or the beginning of
of

of June, and it is astonishing to see the quantity of feed that is frequently produced: it is fed off by the old ewes, or other sheep which are intended for sale, and the land is sown with wheat about Michaelmas.

“ There are other courses of crops, which vary from the above, according to the nature and situation of the farms.

“ On the strong, chalky, and flinty loams, in the bottoms between the hills, and where the farm has pasture and meadow ground attached to it, as is the case with the farm occupied by me at Abbey Milton, the course is as follows: 1. Turnips, rape, &c. manured, after ploughing in the winter and spring; 2. Potatoe oats; 3. Beans, vetches, &c. which are drilled, and horse and hand-hoed; 4. Wheat; 5. Turnips, rape, &c.; 6. Potatoe oats, &c. sown with clover; 7. Clover; 8. Wheat. This course is subject to occasional variations, but is always so regulated, as never to have two white corn crops without a green feeding or hoeing crop intervening.

“ Messrs. White, Champ, Fookes, and many other good farmers in this neighbourhood, adhere strictly to the Norfolk four-field system of turnips, barley, clover, wheat.

“ The aforesaid systems of cropping are pursued by the generality of farmers in the districts which surround Blandford and Milton Abbey; but a few bad farmers must be excepted, who follow a system of their own, consisting of turnips never hoed, and several white corn crops taken in succession, which is never the case with the best-informed men, and many well-informed men are to be found in every part of this county.”

The system of management which Mr. Ilott describes, has certainly made much progress, and is almost universally

sally adopted by the principal farmers of the chalky district.

Mr. Bridge of Winford, has 800 acres of arable land, and his land is generally cropped in the following manner: Wheat, 100 acres; barley or oats, 170 acres; pease, 30 acres; tares, 100 acres; red clover, 60 acres; turnips, 180 acres; mixed seeds, 160 acres.

It does not appear in what manner the land is divided to obtain the above results, neither is it of much consequence, as the course of crops followed by Mr. Bridge, on the hill land, and bottom land, do not differ materially from those described by Mr. Ilott, unless perhaps in the articles of tares and turnips, which are favourite objects in Mr. Bridge's system, and which he takes every opportunity to cultivate.

The system of sowing tares before turnips, is objected to by many farmers in this county, who are of opinion, that not only turnips, but wheat, is essentially injured by the previous growth of tares.

Mr. Shaw, of Spettisbury, pursues the five-field system, which he thus describes:

First year, wheat, sown about St. Michael, from three to four bushels per acre; and the average produce of the neighbourhood is thought to be twenty bushels per acre.

Second, turnips twice hoed, seed $1\frac{1}{2}$ lb. to 2 lb. per acre; average value about 4*l.* per acre.

Third, barley, sown after the rate of five bushels per acre; average produce four quarters. He has drilled some barley; and the part which was not hoed, appeared to be the best.

Fourth, mixed seeds, consisting of 8 lb. of broad clover, 4 lb. of Dutch, half a bushel of Devonshire ray-grass,

grass, and sometimes a little hop-clover; value in the first year 5*l.* per acre.

Fifth, seeds, used as a sheep-walk in spring; sometimes a few acres broke up for pease, or tares, or rape, which latter is exceedingly nutritious for lambs.

Mr. Spear of Monkton, pursues nearly the same course; he sows three bushels of wheat, 9*lb.* of turnip-seed, five bushels of barley, or six or seven bushels of oats, and a mixture of one bushel and a half of Devonshire ray-grass, 4*lb.* of white-clover, 5*lb.* of trefoil, and 6*lb.* of broad clover per acre. The grasses remain two years on poor land, and one year on good land, a part being mown in the former case, and nearly all in the latter.

Mr. Gould, who has lately entered on the farm which surrounds Kingston Hall, intends to pursue the five-shift husbandry, and to sow the trefoil and ray-grass in one course, and a mixture of red and white clover in the next course, to prevent the land from becoming tired of either.

At Tarrant Crawford, the course is wheat, turnips, barley, clover.

E. B. Portman, Esq. of Bryanstone, pursues the common five-field course, and sometimes sows tares or rape on the second year's clover-ley, to be fed off, and followed by wheat in the autumn.

Mr. Billet, of Warmwell, sows wheat in clover-ley, three bushels per acre, which is followed by turnips after the rate of 2*lb.* of seed per acre; then barley, four bushels per acre, and mixed seeds, consisting of 5*lb.* of broad clover, 4*lb.* of trefoil, 4*lb.* of white clover, with ray-grass. Sometimes he sows three bushels of hop-clover and ray-grass; the former being in the husk as it grows. At Morden, Mr. Stent follows the same sys-

tem; he allows from two and a half to three bushels of wheat, 2 lb. of turnip-seed, five bushels of barley, 10 lb. of red clover, 4 lb. of white Dutch, and one bushel of hop and ray, per acre.

Some occupiers of small leasehold livings at Morden, sow wheat, barley, and barley again in succession, and the last crop of barley is fallowed by seed for two years, with very few turnips. The produce of wheat in this system, is estimated at 15 bushels, and the two successive crops of barley at 28, and 20 bushels per acre. But Mr. Stent observes, that some of the leaseholders are coming gradually into the turnip system, and others sow buck-wheat as a manure.

Mr. Bishop, on his own farm at Cheddington, is in the five-shift system, and sows two bushels and a half of wheat, four bushels of barley, or six of oats, and from 15 to 17 lb. of clover per customary acre, with two pecks of Devonshire *ever*, which costs 6*s.* or 7*s.* a bushel. The seeds are sometimes in the following proportions—4 lb. of Dutch clover, 4 lb. of hop-clover, and 7 lb. of red-clover.

He says, some people suppose that when two bushels of ray-grass is sown per acre, it makes the land too close for wheat, but he does not find that consequence follow when only half a bushel is allowed; and he prefers sowing some ray-grass, because it grows earlier in the spring than the clovers.

The same course is adopted by the principal farmers about Cerne, Frampton, Dorchester, Piddletown, Dulesh, &c.

In the Vale of Blackmoor, there is but little arable land, perhaps not more than one-eighth or one-ninth of the whole; and as the land, for the most part, is not adapted to the culture of turnips, there is scarcely any thing

thing like a regular course of cropping, unless in those places where it is regulated by ancient customs, in unclosed fields ; and there are but few of these now remaining.

A very prevalent course in the Vale, is summer-fallow, wheat, barley, oats, and two years' seeds. This course, he thinks, is a very bad one, and does not permit his own tenant to follow it ; and a similar course is followed, not only on the clay soils, but at Chettle, and several other parts of the chalky district.

In other parts of the Vale, only two culmiferous crops are taken, and clover, or mixed seeds are sown with the latter. In this case the mixed seeds are sometimes broken up for tares, or beans, or sometimes the land is summer-fallowed for a crop of wheat. The land which is sown with red clover, is generally broken up in the autumn, and wheat is harrowed in, according to the approved practice in the best cultivated parts of England ; but the Vale farmers generally have a summer-fallow once in five or six years, and are pretty unanimous in the opinion, that better wheat can be obtained in this way than after red clover. In such parts of the Vale where the land is too strong to bear good barley, the course is sometimes fallow, wheat, beans, oats, either with or without clover.

In the vicinity of Sturminster, the course of crops, and the average produce, is described as follows :

1st, Beans, three bushels to the acre, planted irregularly all over the land, from the beginning to the end of February ; produce 35 bushels per acre.

2d, Wheat, three bushels to the acre, sown about the beginning of October ; average produce about 30 bushels.

3d, Barley, four bushels of seed per acre, and the average produce four quarters.

4th, Seeds, consisting of about 10 lb. of broad clover, and a sack of hop and ray per acre.

In the Isle of Purbeck, the Rev. Mr. Dampier, of Langton Matravers, thinks the best course of crops is a five shift. 1st, Wheat.

2d, Turnips, chiefly of the Swedish kind; or vetches, or beans, which should be manured with yard-dung.

3d, Oats, with clover.

4th, Clover, which must be fed off early enough for the land to be summer-fallowed for wheat; or when the land is clean enough, vetches may be substituted instead of the fallow.

Fifth field to be sainfoin. The sainfoin, however, is not sown except on dry lands, or such as are not subject to springs, where the substratum is calcareous, and in these cases the crop is generally large, and affords excellent hay, and the after-grass is very good for young lambs. It is often permitted to remain ten years.

Mr. Dampier adds, that the advantages of this system, when compared with the three-shift course, (or wheat, oats, and clover) which is the common one in Purbeck, are numerous: the wheat land will be wholly manured by the fold; the yard-dung will be applied to the turnips, &c. and a certain crop of oats will succeed. The land in the fourth year will be in fine condition for wheat, either after summer-fallowing or after vetches fed off. This mode will improve the land, produce more corn and straw at a less expense than the three-field system, and will enable the farm to keep one third more sheep. There should be about one-fifth or one-sixth in sainfoin, to supply the loss of clover-hay.

The

The Swedish turnips would enable the farmer to take off the whole stock of sheep from the meadows, soon after Candlemas, by which means the hay-crop for the ensuing year would be ensured, for the meadow land should not be fed after the middle, or latter end of February. The Swedish turnips too would support the whole stock of sheep, till the pastures and *cwe leazes* be perfectly ready to receive them.

Wheat is sown after summer-fallow, and is succeeded by oats or barley, and seeds, on the greater part of the southern clay and stone-brash district, which extends more than forty miles along the coast, from Binton Bradstock to Swannage. This is the common course in the parish of Fleet, and in Chickerill, Langton, Herring, &c. but is sometimes varied by a few pease or tares, and turnips in small quantities. Cow-grass is sometimes sown instead of clover, and remains two years. What is called summer-fallowing, is, however, in most cases similar to what was termed *tempering* in Norfolk, and is merely clover-ley, ploughed three or four times, after the first feeding by sheep early in the spring. And this method is pursued by many farmers who sow turnips in their regular course, according to a five-field system of fallow, wheat, turnips, barley, seeds.

This plan is mostly adopted on land which consists of a cold clay-loam, upon a stony or chalky substance, where it is found wheat will not succeed after clover on one ploughing.

The western district, and particularly that part of it which extends from Burton to Beaminster, is distinguished for the growth of hemp and flax; regularity of cropping is here little attended to, flax or hemp being sown frequently as fallow crops, and succeeded by wheat,

barley, oats and seeds. The seeds are often broken up for flax; and in many cases, the clover, &c. is sown with the flax crop. There is, indeed, very little reason for attending to a regular course of crops, where the soil has sufficient fertility to bear good crops of hemp, &c.

Mr. Legg of Mapperton, describes his course of crops as follows:

1st, Wheat, sown from the 12th October, to the middle of November, after the rate of two bushels to two and a half per acre, when sown late. Average produce, 20 bushels per customary acre.

2d, Barley, harrowed in, about the middle of April, four bushels to the acre; produce about 28 bushels, or on the worst land, oats instead of barley, the seed from five to seven bushels per acre, and the average produce about 30.

Sometimes a flax crop is taken after wheat, and the land is let to flax jobbers, for about 9l. an acre.

3d, Turnips, with a few rapes, to be consumed by lambs, which leave the turnips untouched. They are hoed at 6s. an acre and two gallons of cyder, one man hoeing about half an acre a day. But many neglect hoeing entirely in this neighbourhood.

Turnips, when well hoed, are believed to be worth about 4l. an acre in the spring; but they are often fed early, to be followed by wheat, and in that case, are worth only 40 or 50s. per acre.

4th, Barley with seeds.

5th, Seeds, which are sometimes a mixture of six pounds of white clover, and one bushel of Devonshire ray-grass per acre, or from 10 to 15 pounds of broad clover by itself. Or hop-clover and ray-grass on the stone-brash soils.

Mr. Conway of Netherbury, and others in that neighbourhood,

bourhood, pursue the regular four-shift course of wheat, turnips, barley, clover. The clover is often mowed both for hay and seed; of which latter it sometimes produces two-hundred weight per acre.

It is common to sow 12 pounds of red clover with half a bushel of Devonshire ray-grass; a peck of the latter, according to this gentleman, being worth more than a sack of the common sort. He observes the hop-clover does not do well here, unless on stone-brash soils.

Some farmers are of opinion, that it is a good plan to sow either wheat or flax on ley ground, to be followed by white turnip, and barley or oats, with mixed seeds.

Mr. Pittfield of Symondsbury, sows from half a bushel to a bushel of Devonshire ray-grass, with three or four pounds of red, and white clover, trefoil and cow-grass. He thinks there should be little ray-grass, as it impoverishes the ground. Broad clover is sown by itself after the rate of 12 or 14 pounds per acre; it remains only one year, and is succeeded by wheat; old turf being preferred for flax.

At Wootton Fitzpaine, the course is, wheat, flax and oats, or sometimes seeds with the flax, by which method they are sure to be good. The ground is too stiff here for barley.

At Dallwood, Wambrook, &c. the courses are very irregular, but the three-shift course of wheat, oats, and seeds, which was formerly in use all over this county, is still much in vogue in this vicinity, but the seeds are sometimes permitted to remain for five or six years.

The clover leys which remain unbroken for some years, are said to produce the best flax; and from this it appears probable, that *ray-grass does not exhaust the soil*: though, for some reasons, a contrary opinion has obtained much currency in many parts of England.

In the vicinity of Sherborne, the soil is a stone-brash, and is cultivated principally in the modern rotation of turnips, barley, clover, wheat.

Lord Digby's tenants sometimes sow a little hemp and flax, but not without leave previously obtained.

From the preceding remarks it will be seen, that the custom of sowing white straw crops repeatedly, without a proper intermixture of green crops, or artificial grasses, is rapidly wearing away. This is more particularly the case on the light chalky soils; but as the soil or climate is deemed unfavourable to the growth of pease, there remains still some advocates of the old system, who maintain the propriety of, at least occasionally, sowing barley or oats, after wheat, where the soil is good; and those who are not public advocates of this practice are said to adopt it on some occasions.

In the open fields, different customs prevail, and perhaps nothing short of an Act of Enclosure can alter them. At Wareham, Wool, Sturminster-Marshall, and other open fields, turnips sometimes are sown very early, and fed off previous to St. Michael, or sometimes ploughed in as a manure for the wheat, and this crop is followed by either barley or oats, and sometimes by both.

In one part of Melbury Abbas, the course is wheat, barley, or oats and seeds, two years, and in another part of the same parish, a similar course, but the seeds remain only one year. In Comford Magna, which is lately enclosed, the course is now a four-shift, viz. wheat, turnips, barley, clover. Previous to the enclosure they used to take four or five crops of corn in succession, with but little clover, and no turnips.

At Owermoigne, the course is wheat, barley, clover, one year, then wheat again; sometimes a few turnips are sown.

At

At Fordington, according to Mr. Henning, near Dorchester, the course in the East-field is, 1st, Wheat, sown at the rate of two and a half to three bushels per acre. 2nd, Barley, four bushels, or oats five bushels per acre. 3d, Clover 10 lb. per acre, with two bushels of the common ray-grass. This is mown once, and wheat is sown on one ploughing. In the West-field the course is wheat, barley, and clover for sheep to consume in common.

The custom of sowing barley after wheat, as well as after turnips, furnished the means of exporting a great quantity of this kind of corn, in former times. But the exportation of barley and malt has much diminished, and is likely still further to diminish, as the modern course of crops becomes more extensively established.

The custom of cropping the ground incessantly with white strawed crops, must have been practised almost to the end of the last century, without any very great opposition from the principal land-proprietors, as there are leases, made as late as 1805, in which the tenant is merely restricted from sowing more than two corn crops in succession, and there appear to be many of the same sort in existence at this time.

On the other hand, there is a singular custom in the Isle of Portland, which consists in fallowing half the arable land every year, and sowing the other half with wheat, barley, oats, and a few pease and tares.

Mr. Lowman, the principal farmer in that island, observes, that they cannot obtain a sufficient quantity of manure to enable them to crop the land more than once in two years; which makes it necessary to let the other part regain its fertility, by means of *rest, ploughing, and exposure to the sun and wind.*

SECT V.—WHEAT.

IN the Vale of Blackmoor, wheat is sometimes, though not often, sown after beans: but it most commonly succeeds red clover, or summer-fallow.

In the district which extends from the termination of the chalky hills, to the counties of Devon and Somerset, it is a very common practice to sow wheat after either hemp or flax, with as much tillage between the two kinds of crops, as appears requisite or practicable.

There is but little wheat sown after clover leys upon one ploughing, either in Purbeck, or the other stiff clays, &c. that extend along the coast, but the land is generally brought to a good tilth by four ploughings.

The management of the whole of the chalky district is nearly similar, as far as respects the principal farmers in the enclosures. The following remarks by Mr. Ilott, are applied to the central parts of it, which surround Milton Abbey and Blandford: "The preparation for wheat, is similar to that of most other upland sheep districts. Upon the thin chalks and shallow flinty loams, it is generally sown on the back of a two years' clover-ley, but even on those thin soils, a great deal is sown after turnips, rape, &c. fed off with sheep early enough to sow it in the same autumn, and in most instances a good crop is produced of a fine sample. On the better sorts of chalky and gravelly soils, the same practice prevails, except upon the ley-ground which continues in grass but one year instead of two; the wheat is taken after the first year's ley, and is supposed to answer better than it would in the second year upon the latter description of soils."

Mr. Ilott himself, upon a chalky and flinty loam, sows
his

his wheat after drilled beans, which are kept perfectly clean by horse and hand-hoeing. He intends to drill his wheat as well as beans, and makes no doubt but it will answer extremely well.

Manuring.—In the above districts, it is customary to manure for wheat those lands which have not been sheep-folded ; and but very few farmers ever save any dung for their turnip crop. This is not to be reckoned a good practice, and may account in some measure for the foulness of the wheat-stubbles, and may also in some degree cause the diseases which the wheat crop in this county is often subject to, such as smut, mildew, &c. and which do not so often infest the wheat in those counties, where the whole of the manure is applied to the turnip land.

This practice of manuring for the wheat crop, is general on the whole of the chalky district, and in many other parts of the county. There are some who both manure with yard-dung, and the sheep-fold, very early in the summer, and thus render the second crop of grass (which supports many sheep in other counties) of very little value.

Others who have a large portion of down-land, fold their clover-leys, both before and after the wheat is sown three or four times over, though of course in a rather slight manner.

The Season.—For sowing wheat upon the upland part of this county, is from the middle of August to the latter end of October, as the state of the land may incline the farmer to proceed upon that part of his business : but September is reckoned the best month, and sometimes a considerable quantity of land is sown with wheat as late as the first week in November ; but this is after
turnips,

turnips, rape, &c. fed off with sheep, and where these crops have been in abundance upon such land, the succeeding wheat is generally abundant also, and the sample of a superior quality.

The answers given to this question, by some of the principal farmers in several parishes, are here inserted.

Warmwell.—Middle of September to St. Michael.
 Kingston Russel.—The 6th of August to St. Michael.
 Frampton.—The 12th of September to Michaelmas.
 Evershot.—The beginning of September.
 Cheddington.—The middle to the end of September.
 St. Giles.—The end of August.
 Morden.—The end of September.
 Bettiscombe.—Michaelmas to Christmas.
 Powerstock.—Old Michaelmas to December.
 Abbotsbury.—Martinmas to Christmas, or after.
 Netherbury.—Old Michaelmas, or after.
 Beaminster.—October 5.
 Swyre, Piddletown, and Bradford Abbas.—All October.
 Waterson.—The beginning of October.
 Loders.—The 20th of October to the 12th of November.
 Wareham.—The 10th of October.
 Purbeck.—The end of September and first week in October.

The nine-share plough is very much used on the whole of the chalky district, for the purpose of making hollows or drills on land which has been long ploughed and baked down by the fold. After this operation is performed, the seed is sown and covered by harrowing in the usual way. On the lighter soils, of a sandy nature, or on such chalky loams as have not been long ploughed, the seed is often harrowed in without the previous use of the nine-share plough. In the Isle of Purbeck,

beck, and other districts where the land is summer-fallowed, the seed is frequently ploughed in, as is the custom on the clay soils in other parts of England.

A great many intelligent farmers in this county, have a high opinion of the merits of the nine-share plough, in connection with the system they have adopted of using every means to make the chalky loams as close and hard as possible; for this purpose they plough the land early, harrow it down level, and fold it previously to its being sown; some press it down with a roller that requires four horses to draw it, and the land is often folded or trod by driving sheep over it after it is sown, which is preferred to rolling, as it is deemed desirable to leave the surface of the soil rather rough and cloddy, by which means the wheat is in some measure protected from the frosty winds, and fewer weeds vegetate amongst it.

Mr. Portman mentioned an experiment that has been made with heath or ling, by putting a plant of it into a pot containing sand in the middle, but surrounded with a stronger soil, in which case the roots of the heath turned back on all sides as soon as they had reached to the firm soil, and penetrated only the very loose sand in the middle of the pot. Such, Mr. Portman says, is the case with couch-grass; it is incapable of penetrating the soil which has been well compressed together, and thus the wheat grows the better on two accounts. Thus it will be easily seen why the farmers in this county use the nine-share plough as a means of putting in their wheat, in preference to ploughing it a second time.

Seed.—The quantity of wheat sown per acre, varies according to the season and the soil. At an early season of the year, from two and a half to three bushels, and at the

the latter season for sowing this kind of grain, two and a half to three bushels and a half per acre, the lightest and poorest soils requiring to be sown the thickest.

The quantity used by some of the principal farmers, may be seen below.

Powerstock and Beaminster, two bushels; at Swyre, Corfe Castle, Kimmeridge, Cheddington, Netherbury, and Bettiscombe, two bushels and a half.

At Stinsford, three bushels; at Whitechurch, two and a half if early, or three bushels when late, and the same at Loders.

At Abbotsbury, two and a half on fallows, and three bushels on ley-ground. At Osmington, one bushel and a half before St. Michael, two bushels from that time till November, and two bushels and a half afterwards, per customary acre.

Bradford Abbas, two bushels per customary acre.

Cerne, two and a half to three bushels customary measure.

Morden, two bushels and a half generally, but three if late sown.

At Kingston Russel, three bushels per acre.

At Winfrith, three to four bushels; at Kingston, near Wimborne, four bushels per acre; and Mr. Portman, at Bryanstone, three and a half to four bushels. Mr. Bridge, of Winford, sows two to two and a half; and the general average of the county is said to be two bushels and a little more than three pecks per acre.

Sort.—Various sorts of wheat are grown in this county, viz. the old red straw, or red lammas, red neck, red hoar, tanner-wheat, red American, brown Dantzick, Winslow, &c. as well as various sorts of white wheat too numerous to describe, with a small proportion of rivets,
or

or cone wheat. "Upon the lighter descriptions of soils, which are generally sown at an early period, and where there is no apprehension of the corn being lodged, the old red straw kind is much approved both by the farmer and the miller. But where from length of straw the crop is more liable to lodge, the tanner-wheat, the red American, brown Dantzick, and some of the white wheats, are found more beneficial to the farmer; and in some of the strongest bottom lands in good condition, that run the crop to great length of straw, the red hoar, red American, and some kinds of white wheat are grown to the greatest advantage."

Mr. Bridge, of Winford, prefers red wheat, or brown Dantzick, for hilly ground, and white wheat for bottom lands, as it is not so apt to be laid down, and is less hardy than the red kinds. White hoar wheat is often sown on high land.

In consequence of the injury sustained by the wheat in the winter of 1810, spring-wheat was sown in many places to fill up vacant spaces, &c. There are some who have obtained tolerable crops of this kind of wheat, and others who entertain a very low opinion of its value. The proper mode of cultivation seems to be little understood.

Distempers and Steeping.—The observations on the various maladies to which wheat is subject, and the means, or supposed means of cure, may all be included under one title, to prevent useless repetitions of names, &c.

Steeping and liming of wheat is much practised in this county, on account of a great quantity of new wheat being used for seed; the sowing season not generally commencing till after the harvest is finished, except in a few partial districts, where old wheat is used for seed at
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the early part of the seed time. The steeping and liming is generally supposed to be beneficial in preventing the production of smut, in the crop growing from such seed ; but Mr. Hott planted all new wheat in the autumn of 1809, without brining or liming (which he had also done many times before) and never grew a crop of wheat more free from smut than in the harvest of 1810. But the sowing of new wheat without steeping and liming, nevertheless is not to be recommended, as much of that which is used for seed is contaminated with smut, and from such seed a smutty crop might be expected, if that process were omitted.

The custom of steeping new wheat, which is sown late, and sowing old wheat very early without steeping, is prevalent on the Cotswold hills in Gloucestershire ; and there are some people in Bedfordshire who think late sown wheat is the most liable to smut.

In this case it will be observed, that neither the time of sowing, the kind of seed, nor the neglect or observance of the steeping process, can prevent the crop from being visited by the blighting winds, &c. of the succeeding summer ; which are allowed on all hands to be among the efficient causes of mildew.

Mr. J. Bridge, of Winford Eagle (who is believed to have made more experiments on the different branches of agriculture than any other gentleman in the county) believes smut to be an infectious disorder. His mode of preparation, consists in washing the seed wheat three times, in fresh parcels of pure water. This is done in a tub, in which is put only a bushel at once. The wheat is afterwards brined and limed, and he seldom has an ear of smut from seed which is thus prepared.

Cockle-

Cockle-eared Wheat—Which is here called *pepper-black*, is believed by some to produce smut the next year; Mr. Bridge adds, that neither root-fallen wheat nor burnt-eared wheat is very common about his neighbourhood, and that the earliest sown wheat is generally least injured by mildew.

Messrs. Hardy, of Portisham, have no doubt that the smut in wheat is infectious; but they say it may be easily cured by washing, brining, and adding lime to dry it. It is rather curious that so many people, in various parts of England, should add lime to wheat, apparently with the view only to dry it, though it is obvious, the caustic and antiseptic qualities of this substance, are capable of destroying putridity and animalcula of every description.

At the same time there is little reason to apprehend any danger of the vegetative powers of wheat being destroyed by lime alone, as it has been frequently known to grow at the bottom of the heaps that have lain many days after being limed.

The wheat near the sea is never mildewed, or at least it is not often mildewed on the low ground within a few hundred yards of the water, yet it is subject to that malady on the first range of hills, which are in some places very near, and where the fogs often hang in a remarkable manner. Many people in the neighbourhood of the coast, wash their wheat in sea water, and then lime it; burnt ears are not often seen in this part of the county.

Mr. Henning, of Weymouth, is of opinion, that the mildew arises from a kind of honey-dew, which sticks round the stalks, closes the pores, and thus hinders the circulation. The theory of Sir Joseph Banks, seems to be rejected (observes Mr. Bachelor) without any solid grounds; as all who have examined mildewed plants with a microscope of sufficient power, will grant that the

DORSET.]

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spots

spots on the stalks consist of bunches of small *fungi*, of the mushroom tribe, which having their roots inserted in the sap-vessels, consequently consume a great part of the nutriment which Nature intended for the supply of the corn in the ear. Yet granting this, it is asserted that Sir Joseph inverted the natural order of cause and effect, in ascribing the mildew to the *fungi*, instead of ascribing these parasitic plants to the mildewing effects of cold winds, moist foggy weather, &c. which are the real causes of the mischief. This latter opinion is probably partly true and partly false; the seeds of the mildew, which are among the smallest and lightest substances in nature, are doubtlessly wafted by the wind in every direction, and (like the seeds of the common mould which grows on the walls of cellars, and on the surface of every moist substance where the air is stagnant) they are ever ready to take root when the pores of the plants are open, or when they are covered with moisture a sufficient time to enable the seed to attach itself and take root.

There is an obvious predisposition to this malady in all wheat crops of very luxuriant growth, whether their exuberant vegetation be caused by the natural fertility of new soils, excess of manure, or the process of hoeing drilled crops. The cause of this predisposition will be found in the large size of the pores, and in the comparatively stagnant and damp state of the air that is imprisoned in such heavy crops; and hence it happens that such crops are never free from mildew in the most genial seasons.

This predisposition to mildew, may in a great measure be prevented by early sowing, according to the united testimony of farmers in the county of Dorset, and many other places; but that portion of the misfortune which is caused by violent alternations, from heat to cold, and
vice

vice versa, (and which are not less pernicious to animals than to vegetables), are of course not to be averted by human means. Yet even here the mischief which may be directly ascribed to the "atmospheric stroke," as it has been called, is comparatively trivial, when contrasted with the immense depredations of the parasite *fungi*, which have taken root by means of a sudden blight, in some cases, but which increase and multiply *ad infinitum*, without any other aid than a continual moist atmosphere.

"The mildew (says Mr. Ilott) is very prevalent in this county, as well in the vale as upon the uplands, and I know of no remedy to advise as a preventative, except that some good might be obtained by applying the manure to the turnip crop, instead of laying it upon the land intended for wheat; and by planting as early as possible after the lands have received sufficient moisture, and by allowing a liberal quantity of seed, as all thin-sown wheat is generally found to be more subject to disease, than that in which the land is well stocked with plants."

As it is of importance to collect and to register every opinion of intelligent and experienced farmers, respecting the diseases to which wheat is subject, the following miscellaneous remarks on this important subject are added: they will be of service to agriculture, if they give rise to inquiry and careful experiment.

The magical influence of the barberry bush is also included among the supposed causes of mildew by many of the most intelligent farmers and gentlemen in the county of Dorset; and whether it really has, or has not any effect of this kind, there is something incomprehensibly mysterious in the subject.

E. B. Portman, Esq. and his Bailiff, speak with confidence as to the blighting effects of the barberry: they

have seen stripes of mildew passing in a straight line from four barberries in the same field.

Mr. Bishop of Cheddington, says barberries are believed to mildew the wheat, and he has seen instances of it at Whitechurch.

Mr. Spear of Monkton, has not the least doubt of the pernicious effect of barberries, he and his father having seen repeated instances of it. He says, some years ago a certain field was so constantly blighted, that the occupier determined never to sow it with wheat again: but on the cause being suggested, he destroyed the hedge, which was full of these shrubs, and planted a new one, and the wheat was afterward free from mildew.

In another case, a field was freed from the effects of mildew, by grubbing up the barberries; but some years after a single stripe of mildew appearing, it was discovered to originate from a barberry that had sprung up from the old roots, and it run in the direction of the south-west wind, that passed through the bush. Mr. Spear related these circumstances without any previous intimation or enquiry on the subject. He entertains a strong opinion that smut is infectious, and believes it may also be produced from smutty straw, or smutty dung in a fresh state. He made the dung into a mixture on a farm which was liable to smut, and had very little afterwards. Old wheat, he allows, is not much subject to produce smut, and believes that the disorder is almost certainly cured by washing and skimming off the bales, &c. from the seed, and adding salt-water, chamber-lice, and lime.

Mr. Richards of Fleet, dresses his seed wheat, by dipping it two or three times in a mixture of hot water, and quick-lime. The operation is performed by means of a common wicker basket, and is said to be very effectual in preventing of smut.

Mr.

Mr. Stent of Morden, has sown wheat many years without any preparation, and has had little smut; but he always changes the seed, and procures such as is very clean. He has found late sown wheat the most liable to smut.

Mr. Stent has seen instances of the blighting effects of barberries at Morden, in a low part of a field.

Mr. Wickins of Mapperton, (who is an eminent land-surveyor), says, that the farmers at Maddington, on Salisbury Plain, always insisted that a certain piperidge-bush blighted the wheat, and they were suffered repeatedly to cut it down to the ground, in which case the effect always ceased. It always took place as if it originated at the bush, and was propagated in line, in the direction of the south-west wind.

At Shaftesbury, Mr. Gillingham observes, there is seldom much smut; the steeps which are generally used consist of soap ley, and lime, and urine.

Mr. Shaw of Spettisbury, always prefers to change his seed, and believes lime is useful in preventing of smut.

At Bradford Abbas, some common wheat was mildewed, when the spring wheat, which had been sown amongst it, where the crop was deficient, entirely escaped that malady. Mr. Conway of Netherbury believes spring wheat is not much liable to mildew.

Mr. Banger of Waterson says, old wheat is never washed to prevent smut, though new wheat almost invariably is; and Mr. B.'s crops have never suffered much injury from that disorder.

Mr. Goodenough of Frawnton, has no doubt of the infectious nature of smut, having tried it experimentally, by inoculating or putting the smutty powder into holes made by a pin in the seed corn.

This gentleman mentioned a circumstance, which seems to indicate that smut may remain in a latent state for

some time. He has seldom any perceivable quantity of smut; and, in one instance, he sowed one half of a field with his own wheat, and the other half with seed procured from a distance, but which appeared as free from smut as his own; yet, at the following harvest, the latter was smutty, and the former clean.

Mr. Groves of Luke Farm, Abbotsbury, believes, not only smut but *brond** is infectious, or continues afterwards in the same seed; he adds, there are but few burnt ears to be seen in the wheat or barley in his neighbourhood. White wheat is not said to be more subject to burnt ears than the red kind in Dorset; but it is remarkably so in Bedfordshire.

Pepper, or cockle-eared wheat, is a frequent disease in this county, though not a very injurious one. The corns are larger than those of smut, and taste mealy, but rather pungent, and the skin when ripe becomes of a dark-brown colour, the internal part remaining white like flour. In one instance, there were smutty, and pepper-black, and good corn, all in one year.

Mr. Boswell of Piddletown, seems to think smut may be prevented by washing the seed in sea water, and afterwards covering it with lime. He observes, that pepper corns are not regarded, as they do not much injure the flour. This latter disease has been termed *ear-cockle* in some places, and supposed to be a hybrid production derived from cockle; it has been also termed the *purples* in other districts, and seems to be a local disease, as Mr. Bachelor never saw a single corn of this kind in Bedfordshire, which would not have been the case, if the disease were derived from atmospherical causes. The meal of these diseased corns, when seen in a compound micro-

* The provincial term for burnt ears of corn.

scope, appears as if it were entirely composed of eel-like animalcula in a quiescent state.

Several farmers about Woolbridge assert, that lime and sea water have been tried to no purpose, and are now much neglected in that neighbourhood; but they allow, that most people are careful to sow as clean seed as can be procured, because they think the good corns, which are sometimes found in smutty ears, are apt to propagate that malady.

The best proof of the fallacy of this opinion will be found in the confession of these gentlemen, that the wheat crops in the neighbourhood of Woolbridge are often, and very much affected with the smut, the diseased ears amounting in some cases to one half of the whole.

With respect to the general system of liming and steeping the wheat, it may be observed, that the want of success in some cases may arise from the process being improperly managed; or by the land having been manured with dung made from smutty straw; or perhaps by the wheat having acquired an hereditary taint or predisposition to this disease. On the other hand, it may well be supposed, that clean wheat, though unsteeped, may produce a clean crop. The assertion, that, when a field has been sown with the same kind of wheat, and all other circumstances being the same, the part which was limed has proved decidedly more smutty than the part which was sown dry, is so much at variance with the common observations of mankind on this subject, that there is much hazard of the fact being disbelieved by nearly all who have not the advantage of ocular demonstration.

If, indeed, many instances of this kind were to be found in the practice of farmers, they must of course be led to believe, that smut is rather *caused* than cured by the use of lime, &c.

The opinion, that smut is caused by the making use of seed which contains some sound corns that grew in ears for the most part smutty, appears unfounded. The smut produced by this means is at any rate very trivial in quantity, as the circumstance of sound corns being found in smutty ears is rather a rare occurrence.

On the whole, it is certainly highly advisable, that the steeping and liming of sound and clean corn should not be omitted, though the best security may, perhaps, be found in the practice of sowing clean seed.

Drilling—Of wheat is not much practised in this county, except on a few farms; neither can it be brought into general use on the upland soils, on account of the flints and other stones. But there are many farms, in some parts of the county, where it might be practised to much advantage. One instance Mr. Bachelor saw in 1810, of drilling wheat upon a light chalky soil: it was upon a farm belonging to Henry Bankes, Esq. in the occupation of Mr. Charles Gould of Kingston, near Wimborne. The wheat was drilled in equi-distant rows, six inches apart, at the rate of about two bushels and a half per acre, and at this time is looking thicker and better than his wheat which is sown broadcast. But there are many soils in the county, much better adapted for the drill system of husbandry than the above-mentioned light soil.

Dibbling—Of wheat is not practised in this county.

Water-furrowing—Is made use of upon all lands sown with wheat in the vale part of the county, as well as in the strong soils in the bottoms between the chalky hills; and a greater nicety is observed in respect to keeping the
land

land dry, by shovelling the furrows, &c., than is to be found in many other counties.

Hoeing—Of wheat is but little practised, though there is no doubt but it might be frequently practised at the proper season of the year with the prospect of much ultimate profit to the farmer, particularly on lands subject to knap-weed, &c.

The *feeding* of early-sown wheat by sheep, though considerably in use, is objected to by some of the most intelligent farmers in this county. Mr. Bridge of Winford, seldom feeds off his wheat with sheep; and Mr. Hott says it is sometimes practised, but generally to the ultimate loss of the farmer.

Reaping and harvesting—Is performed in Dorsetshire as in most other counties, except that in the upland district a great deal of the wheat is mown, and thrown into swarths by a cradle and bow fixed to the scythe, and in general it is found to answer well. Many of the large farmers declare, that if they could have their wheat reaped at a moderate expense, they would rather make use of the scythe.

Mr. I. R. Bramble, jun., of West Parley, is decidedly against mowing; and observes, that, by this plan, some part of the wheat is pulled up by the root, causing the wheat when thrashed to be full of dirt and sand, which injures the flour; the stubble end of the straw (he says) is so very strong, as to prevent the thrashing the wheat clean; that it takes of course much more room in the barn, and requires a much longer time to dry in the field. All these objections being fairly considered, he is of opinion, that the saving, if any, is overbalanced by them.

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In some parts of the county mowing is preferred, on account of procuring the straw longer for reed thatch.

Mr. Bridge of Winford, prefers mowing thick crops, but he says thin ones are more scattered by that mode of cutting. Mown wheat is often gathered up by women, who collect a sufficiency for a sheaf, and then lay it down to draw out a handful for a band. The ground is finally raked. It is said, the wheat is not much beat out by these operations, and there appears to be very little left for the gleaners in general.

Wheat, when reaped, is invariably cut with smooth-edged hooks. Scythes, with hacked or saw-like edges, which are common in the midland counties, are here entirely unknown. The wheat is generally cut within six or seven inches of the ground, so as to leave no haulm that is worth cutting afterwards, contrary to the practice in Bedfordshire and other counties.

There is another mode of cutting wheat practised in the western part of the county, and in a few other places: this is called *hamming* it, (the same operation that in Surrey is called *bagging*); it is performed by beginning at a certain point, and chopping off a part of the wheat from left to right; the part cut off is made to lean by the pressure of the left hand against the standing corn, and is afterwards gathered up in returning from right to left, together with such other parts of the crop as will make a sheaf. It is sometimes bound up at the time, if sufficiently dry and free from weeds. Mowing of wheat costs from 2*s.* to 2*s.* 6*d.* an acre, with beer or cyder, and reaping costs from 7*s.* to 10*s.* an acre, with liquor, sometimes to the amount of a gallon a day; but victuals are seldom given to harvest labourers, as in other parts of England.

The practice of making the wheat crop into field stacks,
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or conical heaps of half a waggon load in each, and letting it remain in the field three or four weeks to dry, is very fashionable in the western part of Dorset, and the Vale of Blackmoor, as also in the county of Somerset.

Mr. R. Bridge, of Langdon Farm, and Mr. Bishop of Cheddington, and probably some others, sheaf their oats and barley sometimes, and stack them in this way, putting a little straw or reed thatch on the summit; by which means, they say, the crop is soon effectually secured in a hazardous season, and time is also afforded for the other operations of harvest.

This practice is said to possess the advantage of mellowing the wheat in the ear, and preventing that flintyness which is often complained of in wheat not harvested in this manner; and is not objected to on any account, except by some who think it does not thrash quite so freely as when harvested in the common way, by setting it up in *stocks* or *stitches* of 10 or 12 sheaves in each.

Some of the farmers prefer cutting their wheat rather *gay*, or green. Mr. Clapcot, of Whitechurch, believes the bran is much less in proportion to the flour when it is cut in this state: and according to Mr. Goodenough of Frampton, cutting wheat before it is dead ripe, is said to put a kind of golden gloss upon the top of the loaves which are made from it.

Such of the wheat crop as is not put into barns, is generally laid on square frames, which are supported on staddles, or pillars and caps of Portland, or other kind of stone. They are generally covered with *reed thatch* or unthrashed wheat straw, which lasts two years for this purpose. It is fastened on the corn stacks by spars made of split hazel wood, which are twisted in the middle, and used in this state to bestride and hold together the small handfulls of *reed*, which cross the roofs in a horizontal direction,

direction, and perform the same office as the hay-bands and spits of the midland counties.

In drawing of *reed*, a frame is made use of, which is frequently four or five yards long, and supported on four legs at a convenient height, having an upright piece at each end passing loosely through a mortise in the upper piece of timber, which, by its pressure on the sheaves, holds them in their place.

The work is performed by women and children, who place a number of sheaves in the frame, with the ears all one way, and pull out all the longest, and form them into a kind of gleans, with the ears all close to their hand till it is full, when the ears are cut off with a reap-hook, or any other sharp instrument.

The ears, together with the short straw, which is not worth drawing, are laid by themselves, and either thrashed by the flail, or put twice through the thrashing machine.

The *reed* is bound into sheaves of eight or nine pounds a piece; and the price of drawing at Frampton is 6*d.* for 15 sheaves.

At Waterson, the price is 1*s.* for drawing as much reed as affords ears and pull tails sufficient to produce a sack of wheat.

The practice of drawing *reed* is very prevalent in the west and northern parts of the county, but not so much in the east and south-east parts, beyond Blandford and Bere Regis. At the last-mentioned town I was informed, that *reed* was seldom drawn, because the landlords would not repay the expense to the tenants.

In some places, the sheaves are partially thrashed, without striking the straw further than the principal part of the ears extend, and the short straws and unthrashed ears are afterwards separated with a wooden comb.

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In the vicinity of Sherborne, the thrashing machines are made to answer the same purpose, by holding the wheat in the hand in small parcels, and withdrawing it when the ears are thrashed.

It has been disputed, whether reed thatch would last longer than that from thrashed straw; but there seems to be no doubt on the subject in this county; where, on account of the great number of thatched buildings, and the comparative small quantity of arable land, it is important to make the most economical use of the wheat straw. The practice of reaping very low, and that of mowing the wheat crop, are both useful in this point of view, and they also afford an opportunity for sowing turnips after wheat, which is sometimes practised.

Thrashing by the flail is generally done at the expense of 6d. a bushel.

The produce—Of wheat is said to be no more on the average than 17 bushels 1½ peck per acre. In several parishes it is stated at 20 bushels per acre, and even as high as 30, but in many instances as low as 12 or 10 bushels, and in two parishes the average produce is not allowed to be more than eight bushels per acre.

Mr. Bridge of Winford, thinks the average in his neighbourhood is below 20 bushels per acre.

The average produce of Fordington-field is said to be 18 bushels per acre.

Mr. Strong of Powerstoc, thinks the average produce of that part of the county which lies to the west beyond the chalky district, is 24 bushels per acre; Mr. Pittfield of Symondsburry, states it only at 20 bushels.

On the poor ground at Winfrith, the produce of 1809 was believed to be less than 10 bushels per acre.

Mr.

Mr. Sampson of Kingston Russel, states the average of that neighbourhood at 16 bushels; and which is frequently of a thin and flinty quality.

Mr. Park of St. Giles's, states the average produce of wheat at only four sacks. Mr. Spear of Monkton, says the calculations of a very ingenious gentleman make it appear probable, that the average of the whole county is no more than 16 bushels per acre.

At Tarrant Crawford, Kingston, near Wimborne, and Whitechurch, the average produce is said to be considerably under 20 bushels per acre.

Mr. Henning, near Dorchester, thinks the produce of that vicinity is often 25 bushels per acre, and the average of the county probably 20 bushels.

At Stensford, Netherbury, and Cheddington, the produce is generally about 20 bushels per acre. Mr. Alner of Piddletown, thinks 20 bushels above the average in that parish; and Mr. Bolson and Mr. Boswell coincide in the same opinion. Mr. Wood of Osmington, often obtains 24 bushels per acre; and Mr. R. Bridge, of Langdon-farm, generally grows 25 bushels per acre.

Mr. Willis, of Corfe Castle, thinks the produce of wheat in Purbeck varies from 16 to 24 bushels per acre.

E. B. Portman, Esq. often obtains 30 or 40 bushels per acre at Bryanstone; and thinks a great part of the chalky district will produce more than 20 bushels, if not very ill managed.

At Shaftesbury, the average produce is believed to be 24 bushels per acre; at Sherborne, about 21 bushels.

The frosty winter of 1810, severely injured the wheat in Dorset, as well as in the chalky district in Wiltshire. In an inferior degree, it was felt in many parts of England, but the county of Dorset in general, and more parti-

particularly the western end of the chalky district, was subjected to this calamity, in a manner never before known.

At Kingston Russel, Mr. Sampson's wheat was entirely destroyed by the frost. And such was the fate of many other crops in the neighbourhood of Winford, Evershot, Cerne Abbas, &c. In the latter parish, Mr. Crane ploughed up 70 acres out of 80. Mr. Henning of Frane farm, near Dorchester, thinks the average produce of the present year (1810), including all the ground that was sown with wheat in autumn, will not exceed 12 bushels per acre, and many farmers will not have enough to supply themselves and their labourers. Yet in Fordington-field, he says, it was remarkable that two farmers who always saved the old red straw wheat, had apparently 25 bushels per acre, while their neighbours in the immediate vicinity had scarcely five bushels.

About Evershot, the early-sown crops looked extremely well, but a frost, which suddenly followed a wet thaw, ruined them almost entirely. Mr. Daw ploughed up his whole crop, consisting of 40 acres; and he remarked that, in some instances, where wheat was sown to fill up deficiencies in the crops, its produce was ripe before that which sprung up from the old roots which the frost had spared.

Mr. Conway of Netherbury, thinks the produce of 1810, for many miles around, was not more than fifteen bushels per acre, customary measure. About one-seventh of the wheat crops were ploughed up in this neighbourhood, and the ground sown with spring crops.

Mr. Spear of Monkton, believes the crops of 1810 would not average more than eight bushels per acre, if equally divided among all the acres that were sown in autumn,

autumn, but that which was permitted to stand for a crop, probably averaged as high as twelve bushels.

The wheat crop in Dorsetshire, in 1811, suffered nearly as much from the blight, as it did from the frost in 1810. There were some circumstances attending the coming on of this disease in Dorsetshire, as well as in other parts of England, this year, which were rather remarkable, and deserve therefore to be noticed.

In the first place, the blight attacked the wheat crop at a later period of its growth than usual. It was in the middle, or rather towards the end of June, when the symptoms and the effects of the disease were first visible; at this time, the *corn* was nearly completely formed, so far as regarded the shape of the *pickle*. This disease, for the most part comes on much sooner in the year, when the wheat is not so far advanced. In consequence of the attack of the disease being so late, it was difficult, without close and accurate examination, to detect it; and many who pretended to have inspected the wheat crops carefully and extensively, ridiculed the opinion, that it had suffered from the blight.

In the second place, the blight in 1811, was extremely sudden in its attack: from repeated and careful enquiries in various parts of Dorsetshire, and the other counties in the south and west of England, the fact seemed to be established, that all the mischief had taken place, in the course of a very few days; in some parts, the very night was fixed upon, during which the appearance of the crop had altered so much as to afford a strong suspicion that it had been attacked by this disease.

With respect to the appearance of this disease in the crop of 1811, it may be remarked, that of the fields of wheat that suffered from it, some were utterly blackened in the straw, so much so, that it was scarcely possible to
pick

pick out any that had not suffered nearly in an equal degree. On the other hand, in some fields, the straw of part was entirely blackened, and of part, the straw, till within a few inches of the ear, was blackened, but immediately under the ear, it retained the pure and glossy appearance of a healthy crop. Wherever this latter circumstance existed, the ear was filled with good grains of wheat; the blight on the lower part of the straw not seeming to have much, if at all, affected the grain. It is very difficult to account for this circumstance: from the appearance of the upper part of the straw, it was evident, that it afforded nourishment to the grain; but from what quarter, or by what means it derived nourishment, can not be ascertained, or even conjectured. If the lower part of the straw, which was blighted, was notwithstanding capable of nourishing that part of the straw which bore a healthy appearance, it might be supposed that blighted straw was equally capable of nourishing the grain itself; but that this was not the case, is evident from the fact that, wherever all the straw, close up to the grain, was blighted, the grain was uniformly shrivelled and poor.

There are several questions that naturally arise respecting the blight, which, if they could be satisfactorily answered, would throw some light on the nature and causes of this disease.

In the first place, is any particular kind of wheat more subject to it, or, when attacked, liable to it in a greater degree, than others? Some persons will not hesitate to answer this question in the affirmative, and even to point out the particular kinds of wheat which are most liable to the blight: but the same observation may be made here, which has already been offered, in the remarks on deep and shallow ploughing. In stating what are con-

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tived to be facts, and in assigning causes in agriculture, many circumstances, which either actually produce, or greatly modify, the fact, are apt to be overlooked. With respect to the subject under discussion, no person is justified in asserting, that any one particular kind of wheat is more liable to blight than other kinds, unless he has repeatedly experienced what he asserts; since what he ascribes to the kind of wheat, may have arisen from the soil, the elevation and exposure, or from other causes, less fixed or less obvious. This remark will acquire additional force, and may indeed be applied to agricultural theories in general, when it is considered, how very few years have passed by, since any farmers paid much attention to the diseases of wheat.

In the second place, has soil any thing to do in producing or aggravating this disease? This question is equally difficult to answer in a satisfactory manner.

With regard to the third enquiry, whether exposure and elevation are concerned, there is less difficulty, because experience and observation are more uniform and consistent in what they maintain on this point. In 1811 those crops of wheat in general which were exposed, from the situation of the ground, on which they grew, were more blighted than other crops; but even here there is a good deal of difference and difficulty; for the wheat in the Isle of Portland, certainly a situation both high and exposed, was much less blighted, than in any other parts of Dorsetshire; indeed it was perfectly free from this disease.

There is, therefore, still a call for very accurate and close examination on this subject; for daily inspection of the wheat crop during the whole period from its flowering till its ripening, with reference to the quarter from which the wind *blows*, and the state of the atmosphere, as indicated by the Barometer, Thermometer, and *Hygrometer*,
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for it is probable the last instrument will be found *more* beneficial and useful to the farmer, even than the two former. As soon as ever the blight is observed, wheat of different kinds, and growing on different soils, and at different elevations, ought to be daily examined, to ascertain how far these circumstances operate in accelerating and aggravating the disease.

SECT. V.—RYE.

RYE is the appropriate crop of such light sandy soils as have not sufficient tenacity to bear wheat: yet, though this county abounds with light gravelly sands, there is very little rye any where to be met with. A very large portion of the sandy district is, indeed, so destitute of every principle of fertility, as to be entirely incapable of growing any kind of corn; yet there are many small parts of it, where rye would be a more proper crop than wheat.

At Morden, and a few other places, rye is sometimes grown on the small *leasehold livings*; the time of sowing is the beginning of September; the quantity of seed is two bushels, and the average produce is said to be about 24 bushels per acre.

This kind of corn is sometimes sown amongst winter tares, with a view of supporting them in some measure; and it is not infrequently sown for spring feed, immediately after the crop of wheat can be cleared from the ground. When cultivated for spring feed, it is common to allow from two and a half to three bushels of seed per acre, and it is sometimes fed as late as the 10th of May; but the feeding is commonly regulated by

the necessity which the farmer is under, of ploughing the ground to prepare it for a crop of turnips.

The practice of growing rye between the wheat crop and the succeeding one of turnips, is deemed an improper one where the land is not in a tolerable state of cleanness, and it is seldom adopted, unless by such as follow the modern improved system of sowing only one crop of corn after artificial grasses.

Mr. Alner of Piddletown, and some other gentlemen, consider the spring feed thus obtained from rye as a valuable resource in some seasons; but, as three bushels of rye will generally cost about 16s., and the ploughing, harrowing, &c. 10s. or 12s. more, it appears a matter of doubt, whether any real advantage can attend this practice, unless under particular local or temporary circumstances.

SECT. VI.—BARLEY.

BARLEY is generally sown after turnips, on one ploughing, and the land is pulverized, and the seed covered by the harrows.

J. Wood, Esq. of Osmington, frequently sows barley after wheat, in which case the first ploughing is performed immediately after wheat sowing is over, and the land is often ploughed twice more, previous to the sowing of the barley. In other parts of the county where the fields are not enclosed, barley is often sown after wheat, and the land is generally ploughed twice, and the seed finally harrowed in.

This succession of white straw crops, must of course meet with the disapprobation of most of those who are the advocates of what is deemed the modern improved system

system of husbandry; and those who have had opportunities of making observations on this practice, assert that barley comes up remarkably weak when wheat has preceded it. The fact which the advocates for this system bring forth, that good land, or such as has been well manured, will bear very fair crops of barley, after wheat or any other crop, is by no means in their favour, since it may well be supposed that such land, under the alternate husbandry, would be much more productive and profitable to the farmer.

The land is rolled almost invariably, either before or after the barley is come up, for the purpose of facilitating the mowing, &c. in harvest.

Manure—Is very seldom applied to the barley-crop, unless perhaps a little sheep-folding, when it succeeds wheat.

Drilling—Is practiced in some small degree on the farm of Dr. Talbot, the Dean of Salisbury, at St. Giles's, in rows of six inches. The drilling is done by Cooke's machine, and the bailiff says the rows must be narrow, and that hoeing does more harm than good.

Mr. Wickins, of Mapperton, believes, that the sowing in seed which may be effected by drilling barley, will amply repay the expense and trouble attending it, though he thinks it should never be hoed, on account of the grass-seeds usually sown nearly at the same time.

The Time of Sowing—Barley, extends from the middle of March to the middle of May.

At Warmwell, barley is sown from the end of March to the middle of April: at Kingston Russel, Lady-day is

esteemed the best time; at Morden, the middle of April; at Cheddington, Lady-day; at Waterson, the first week in April; at Loders, the 20th of April; at Sherborne, and Osmington, any time in April when the season is good.

At Wareham and Netherbury, barley is sown from the end of March till almost the middle of May, and Mr. Conway says, the last sown is often the best.

In the Isle of Portland, March is the general time for barley sowing.

Mr. Wood, of Osmington, sowed a field of barley on the 15th of June about seven years ago, which produced 35 bushels per acre, and he had a field in 1810, which was sown July 16; by which means an opportunity of cleaning the ground was afforded, but Mr. Wood is aware, that without a favourable autumn it would not ripen.

The Sort—Of barley in general use, is the common long-eared kind; and there is very little of any other description.

The winter-barley has, however, been lately introduced, and is sometimes sown alone for spring feed, or mixed with tares, and in either case is deemed very useful.

Mr. Spear of Monkton, has sown this kind of barley, September 12, after the rate of four bushels per acre; he feeds it a little in the winter, but principally in May; after which it is succeeded by turnips. The common practice of mowing the wheat facilitates very much the growth of winter barley, turnips, or any other green crop, between the wheat and the succeeding summer crop of turnips.

Mr. Groves of Abbotsbury, has sown Moldavian barley,

ley, the produce of which was 45 bushels per acre, from two bushels and a half of seed; this kind of barley increasing at the root much more than the common sort.

The farmers in the same parish are not always unanimous, as to the quantity of seed which is most proper.

The following are some of the answers which were given to that question.

Kingston Russel, four and a half to five bushels; Wimborne, four to five bushels; Whitechurch, four and a half; Stinsford, five; Swyre, four and a half; Abbotsbury, three to four; Loders, four and a half; Langdon Farm, four to five; Frampton, Osmington, Swanage, Sherborne, and Cheddington, four bushels per acre; Bradford Abbas and Cerne, four bushels per customary acre.

Mr. Banger, of Waterson, sows three bushels per acre on the best land, and three and a half to four bushels where the land is of poorer quality.

To allow the most seed on the worst land, is a practice so consonant to sound theory, that there are few farmers of any degree of intelligence that will neglect it.

Mr. Bowker, of Charborough, sows only two bushels of barley per acre, to prevent its being so thick as to injure the succeeding crops of clover and grasses. This is a practice which is adopted by other farmers in different counties, who have imported their ideas from the north of England.

The two crops of seeds are so valuable as to repay all the care that can be taken to produce a good crop; and possibly two bushels of barley per acre may produce as good a crop of that corn on rich moist ground, as is compatible with the safety of the grass-seeds; but on poorer soils, the loss of barley arising from this scanty allowance

of seed, would probably amount to more than a quarter per acre.

Weeding—Is generally performed by women, and in ordinary cases an acre per day is gone over.

Mr. Goodenough, of Frampton, observes that there are but few burnt ears, in common, either among the crops of wheat or barley.

Harvesting.—This is performed in nearly the same manner as in most other parts of England. It is almost invariably mown, and turned, if the quantity of clover renders that operation necessary. Previous to its being carried, it is generally put into large single rows of cocks (or *pooks*), and the intervals made clean by hand or horse-drag rakes.

This work is mostly performed by women, after the rate of 1*s.* 6*d.* per acre, and the whole of the corn is invariably conveyed home on waggons by the natives of this county.

The mode of loading the waggons is perhaps rather a peculiar one, as the two men employed in lifting up the corn, put their forks at the same time into the opposite sides of a large *pook*, and lift it up together, instead of having a row of cocks of a smaller size, for each man on both sides of the waggon or cart, as is the common practice in Bedfordshire.

The Average Produce.—The following particulars were obtained on this subject :

Dallwood, 80 bushels per acre; and the same at Fleet, Powerstock, Symondsbury, Frome near Dorchester, Osington, and Winford Eagle. Mr. Pittfield, of Symondsbury, thinks 30 bushels near the average of the west of the county in general.

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At Netherbury, the customary acre is supposed to produce in general 28 bushels, and at Cheddington 30 bushels.

Mr. Willis, of Corfe Castle, believes the average produce of the Isle of Purbeck, is about 28 bushels.

At Stinsford, the common estimate is four quarters, and at Whitechurch and Tarrant Crawford, not more than three quarters and a half are expected in general.

In the opinion of E. B. Portman, Esq. four quarters of barley may be obtained from the chalky district in general after turnips; his own farm, at Bryanstone, seldom producing less than four, and often more than five quarters per acre.

Mr. Stent, of Morden, thinks that four quarters per acre are mostly grown by good managers after turnips, but after wheat not more than 28 bushels, and which, by a repetition of barley the next year, is often brought as low as 20 bushels per acre.

Very little barley is made into bread in any part of the county. The straw is given to cattle, &c. and the awns are taken off the barley when necessary, by means of an instrument called a faltering-iron, made about fourteen inches square, and bars across every inch.

The chalky district produces a great quantity of barley, though probably not so much as was formerly the case, as the practice of sowing barley after wheat, and even twice in succession, has been much exploded of late years; it is still, however, retained in several places.

On the western part of the chalky district, there are many places where the soil on the surface approaches toward a cold clay, and is found unkindly for barley; the produce is generally thin bodied and steely, making very indifferent malt. Such is also the case in the neighbourhood of Fleet, in the southern part of the Isle of Purbeck, and other parts of the clay district.

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“A great deal of malt is made for the internal consumption of the county, particularly in the article of strong beer, which is much used. The malt is generally dried with Welsh coals. From ten to fourteen bushels of malt per hogshead of 63 gallons, with Farnham hops, makes the beer which is so much esteemed here, which is kept eighteen months, or two years before it is drank; and in some of the towns ten or 12,000 bushels of malt are made annually.”—*Claridge*.

SECT. VII.—OATS.

A CONSIDERABLE quantity of oats are grown in this county. In those parts of the chalky district where the subsoil is of a clayey cold quality, they are often sown after turnips, and are deemed more profitable than barley; but where the soil is lighter, and particularly in the unenclosed parishes, they frequently succeed wheat; though it is allowed to be a bad system, by most of the principal farmers. The culture of oats is nearly the same as that of barley; the land is seldom ploughed more than once, the seed is covered by harrowing, and the land is rolled either before or after the oats are up; manure is seldom applied immediately to this crop, unless a little sheep-folding in the autumn and winter occasionally, when it succeeds wheat, or barley; and in a few instances, on very poor land, where it follows clover instead of wheat. The sorts of oats in use are described by Mr. Bridge as follows; Black Poland, some potatoe oats, small Devonshire Dutch brew, small white sparrowbills, and a few of the Tartarian or horse-tail kind, the straw of which is only used for litter. A blue kind
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of oats is also used, the average quantity of seed appears to be a little more than five bushels and one peck per acre. At Kingston Russel, the common allowance of seed is six bushels per acre, and the same at Kingston; near Wimborne, Cheddington, and Swannage, at Kimmeridge seven bushels, of the Tartarian kind.

At Bexington, Powerstock, Bettiscombe, Netherbury, Abbotsbury, Osmington, and Lodgers, five bushels per acre; and at Frampton, Stinsford, and Swyre, five to six bushels.

Mr. Boswell of Piddletown, observes that the straw of oats is much more valuable as fodder for cattle, when sown very thick; and Mr. Wood of Osmington, adds, that the straw of black oats is much inferior to that of the white kind.

The time of sowing, extends through March and April, and the black oats should always be sown early, as well as those of the Tartarian kind.

At Bettiscombe, the best time for sowing oats is stated to be about the 25th of March; at Portland early in March, at Morden the beginning of April is preferred; and at Netherbury, Cheddington, Winford Eagle, Kingston Russel, Osmington, and some other places, it is customary to sow oats before barley in general. At Warmwell, Mr. Billet sows black oats at the beginning of March, and Mr. R. Bridge of Beaminster, sows white oats mostly between the 24th of March and the 5th of April.

The mode of harvesting oats is in general the same as is used in all parts of England. Mr. R. Bridge of Langdon Farm, reaps and sheafs most of his corn, and leaves it in the field in conical *windmows* for some weeks; but oats are not often reaped in this county. In the Isle of Portland, where much of the harvest work is done by women,
oats

oats are reaped, even when the length of the straw is scarcely half a yard.

The usual produce of oats, about Shaftesbury, is stated at five quarters per acre; at Langdon Farm 40 to 60 bushels; in Purbeck 32 bushels; at Osmington 30 bushels; at Netherbury 30 bushels, and at Cheddington 35; but in each of the three parishes last mentioned, the estimate is made on the customary acre.

Some years since, Mr. Groves of Bettiscombe, sowed oats and turnips together, in the middle of summer, and fed off the oats in winter and spring with sheep; he obtained four bushels of turnip seed in the ensuing summer from three acres of ground, and had about three-fourths of a crop of oats.

SECT. VIII.—PEASE.

THE growth of pease in Dorsetshire is very inconsiderable; they are sometimes sown after wheat which has succeeded clover, as in Norfolk and other places; but the most common method is to grow them on the clover ley that has lain one year, in which case they are succeeded by wheat, and the five years succession of crops goes on in the same regular way, whether pease are cultivated or not. Pease, in the opinion of some farmers of this county, should never be sown after wheat, as the ground is then so light, that they produce much straw but very little corn; he drills them occasionally, with Cooke's drill, four bushels per acre, in rows eleven inches asunder.

At Kingston Russel, it is observed that pease often produce abundance of straw, but it is frequently mildewed, and turns almost black, producing very little corn. The same

same observations are made in other places, and perhaps the excess of moisture, which may be expected in this hilly and maritime district, is the principal cause of the ill success of the culture of pease, which is so generally complained of. In consequence of this, flax is sown instead of pease, by some farmers.

Pease also are very little in demand; and this circumstance, joined to their precarious nature, their produce being only from 15 to 18 bushels, where 40 bushels of oats might be expected, has gradually diminished the breadth of ground sown with them.

The sort which is principally used, is the Marlborough grey; there is also another kind which is called the partridge pea. This latter kind, grows very late in the summer, and should therefore be sown early.

At Swannage, the Marlborough greys are sown about the 14th of February, after the rate of four bushels per acre; they are generally harrowed in.

At Shaftesbury, four bushels per acre are sown, and the average produce is about six sacks.

At Osmington, three bushels of Marlborough pease, per customary acre, are sown the beginning of March, if the weather is good; as a heavy rain will wash away the soil, till many of them are uncovered; the average produce is about 20 bushels.

At Frampton, four bushels per acre are sown.

The average quantity of seed is about three bushels three pecks; and the average produce about 15 bushels three pecks and a half per acre; the ordinary price is said to be about 6s. a bushel. The Bridport district is most adapted to pease; and the produce in the broadcast mode is often 30 bushels per acre.

Drilling of pease is practised in but few places, yet
many

many of the farmers allow that they ought never to be sown broad-cast.

At Bexington, pease are drilled by — Wolstenholme, Esq. in every third furrow, by means of a drill which is fixed between the plough handles : three bushels of seed are drilled per acre ; but the distance between the rows in this mode of culture, appears far too large, to admit the prospect of a good crop. On soils of moderate fertility, 18 inch intervals between the rows are more proper than those of 11 or of 27 inches : in the latter case very large portions of the ground are exposed to view, till the crop is ripe, and in the former case horse-hoeing cannot be advantageously adopted.

Mr. Bowker of Charborough, drills pease in rows two feet and a half asunder : in hoeing them he first takes a furrow from each row, by means of a double-beamed hoe, which can be set at different widths, between the points of the two shares ; but this implement would only move the ground to the width of 15 inches : the pease are moulded up finally by a double mould-board plough, similar to what is so generally and advantageously used in the north of England in the culture of drilled turnips.

Pease are commonly mown, but they are reaped or cut by hooks, by a few individuals : the latter mode is certainly the best when the pease are drilled.

The straw is chiefly consumed by horses, as is likewise some of the corn, when it has been thoroughly dried in the spring ; before which time pease cause the gripes, and are very pernicious to horses.

SECT. IX.—BEANS.

THE quantity of beans which is grown in this county is very small; there are but few places in the chalky district, where the soil is sufficiently deep and strong to bring them to perfection; and the clay and stone-brash district, which extends all along the coast, is esteemed, for the most part, very indifferent bean-land.

The soil is in some parts near the coast very cold, tough, and intractable on the surface; yet, even in those instances, beans will seldom succeed, if the stony strata lies at no great distance from the bottom of the cultivated soil.

In the Isle of Purbeck they are scarcely ever sown, being very liable to mildew; yet the Rev. Mr. Dampier once obtained a crop of 44 bushels per acre, on a piece of land which was in very good condition.

In the Bridport district, the soil, though excellent for hemp and for pease, is not generally of sufficient tenacity to bear good beans.

Almost the whole of the county which lies near the borders of Devonshire, Somersetshire, and Wiltshire, is improper for the bean-culture; and the Vale of Blackmoor, where they are mostly cultivated, contains little arable land; and even there, white-strawed crops are frequently preferred.

On the bean-culture, Mr. Hott of Milton Abbas makes the following observations: "They are cultivated mostly in the vale part of this county: the land is ploughed into ridges about Christmas or soon after, and about Candlemas the seed is dibbled, one in a hole, all over the land, at the rate of about four bushels an acre. No after-culture

ture is given to the crop, which often proves a very great loss to the farmer, by allowing his land to fill with weeds, and the crop is frequently poor and scanty.

"In the upland part of the county there are but few farmers that ever attempt the cultivation of beans, though there are some lands between the hills that would answer extremely well for that crop. I have myself cultivated beans upon strong chalky and flinty loams with success, always drilling the seed in rows of about 24 inches asunder, cultivating the intervals between the rows with a small plough, as well as by horse and hand-hoeing; and I find this method to answer very well. I have found it very beneficial to plough the land deep for beans, as also to cut off the tops of the growing beans; which is done about the middle of July, or sometimes sooner, according to the time of planting. The tops are cut off with sharp reap-hooks, which prevents their growth upwards, causes the pods to fill better, and ripen much sooner; which latter circumstance is very material. The expense of this operation is about 1s. an acre."

The mode of cultivating beans which is described by Mr. Ilott, is well worthy the attention of farmers in general; and his crops, in consequence of his good culture, are as clean and luxuriant as any in the county. He sometimes sows turnips amongst beans when cultivated as above mentioned.

Drilling of beans, with intervals of 28 or 30 inches, is practised at Bexington. A crop of beans were planted in this manner on a very rich piece of land near the Chesil bank; the soil had been turned from the rows by a small plough, and afterwards returned towards the corn by the same implement; and some hand-weeding had been performed.

This mode of culture appears to be a very good one,
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where the ground is rich; and the beans in the present case were a luxuriant full crop on a part of the field, while the poorer parts of it produced little more than half a crop; and would have proved far more productive, had the intervals been only 18 or 20, instead of 30, inches wide.

Only two bushels of beans were drilled on an acre.

Mr. Pittfield of Symondsburv, sometimes drills beans or pease in every second furrow with a hand-drill, and afterwards hand-hoes the crop. There are also a few instances in which the beans have been set in rows, in every second furrow; but the drill-system is truly in its very infancy in Dorsetshire. Most of the large farmers seem ready to acknowledge, that pease and beans should always be drilled or dibbled; yet the imperfections of the machines, the stony nature of some part of the soil, the ignorance and obstinacy of servants, or some other cause, generally hinder such good intentions from being put into practice.

The truth is, the drill-system is not likely to be well executed, without much personal attention by the master, or an intelligent substitute; while it is also equally obvious, that no person will occupy one or two thousand acres of land, unless his gains will enable him to dispense with the trouble as well as the profit of the drill husbandry.

The practice of setting beans, one in a hole, and in an irregular manner, in imitation of the broad-cast plan, is a singular and eccentric mode of husbandry, which is prevalent in several parts of the Vale of Blackmoor.

Mr. Gillingham of Shaftesbury, and several other farmers, state, that the general practice is, to plant four bushels of beans per acre, at 4s. per bushel; though, according to Mr. G.'s observation, they are some times so
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managed, that three bushels sown under the furrow, as it is called, or ploughed in, have produced a fuller crop. It may be often seen, that such farmers as introduce a new mode of husbandry, proceed in such an improper manner, as to disgrace a good practice in the eyes of their neighbours. In this case, the practice of setting beans by the peck or bushel, induces the labourers to plant a bushel more than is necessary on an acre, or, what is worse, to bury it in deep holes, or carry it home to their pigs.

The planting of beans all over the land, nearly at regular distances, and *only one in a hole*, are practices which those who have seen only the broad-cast husbandry are very apt to fall into, though they have been long exploded by the advocates of the row culture. The greatest part of the dibbled beans, in Oxfordshire, Berkshire, Buckinghamshire, and Bedfordshire, are planted across the ridged lands in rows 18 or 20 inches distant, and three or four in each hole.

About three bushels per acre would be sufficient to plant rows of 18 inches asunder, and to set the beans all singly in holes two inches apart, but the holes are commonly made six or seven inches distant in the rows, and in some parts of Berkshire as much as nine inches: this last distance, however, is probably too great.

Instead of the beans or other corn growing better, on account of each corn having, as it were, its own proper portion of soil for its roots to spread in on all sides, many of the drillers believe, that corn flourishes the best in every respect when the roots are moderately crowded.

Though it is not common to hoe beans in the Vale, or to plant them in a way proper for hoeing, yet it appears there are instances of both; and beans are sometimes put into the ground by means of the nine-share plough.

It is not likely that any person will expect to acquire
much

much useful knowledge on the culture of beans in a district where it is common to plant four bushels of beans per acre, and to sow only three bushels in the broad-cast mode; which is exactly the reverse of what is practised by all good farmers.

It is also not a little remarkable, that any farmer should state the average produce of beans so low as 12 bushels per acre, under any mode of cultivation; while others allow that 30 or 35 bushels are generally obtained. Most of the arable land in the Vale of Blackmoor is certainly capable of producing more than 20 bushels of beans per acre, without either dibbling or hoeing.

Mr. Bridge of Winford Eagle observes, that beans are seldom ripe till the end of September, in his neighbourhood; which scarcely allows time to sow wheat after them in good season. They are sometimes reaped, and at other times and in other parts of the county, they are pulled up by the roots.

SECT. X.—TARES.

TARES are mostly sown in this county for soiling of horses, and for keeping sheep in a store state, as well as for fattening them, particularly in the vale part of the county around Sherborne: they generally pay well for the expense of cultivation, and are of essential service upon all arable farms. They are but seldom mown for hay; their value per acre, for green food, varies according to circumstances, from 2*l.* to 3*l.* per acre. This kind of crop is but seldom ploughed down in its green state for manure. The time of sowing winter tares, by the most careful farmers, extends from the middle of September

to the middle of October, but many neglect sowing them till a later period. Spring tares are sown from the beginning of March to the middle of June ; and the general quantity of seed is from two to three bushels per acre ; but the proportion of seed in those sown in June is about one bushel per acre, with the addition of two quarts of rape seed, merely as food for sheep in the autumn ; and it is surprising what a quantity of food is frequently produced by this means. The land is generally sown with wheat in the autumn when the tares are consumed.

Mr. Stent of Morden, believes they are often worth from 3*l.* to 5*l.* per acre for soiling horses, though less when fed by sheep.

In the hilly parts of the county, winter tares are seldom sown. At Kingston Russel, Mr. Sampson observes they are scarcely any earlier in use than the spring kind. At Abbotsbury, it is said that winter tares frequently prove of no value, being often destroyed by the frosts, or by the sparrows, rooks, and other birds, which pull up and destroy clover, tares, or any thing which is green in severe seasons ; and at Bryanstone, Mr. Portman admits that the hares render the growth of the winter kind impracticable.

Spring tares are much cultivated by all the best farmers in the county, and are mostly sown in the spring or summer on ley ground, which has been fed one year, and they are followed by a wheat crop in the succeeding autumn.

In several parts of the county it is common to sow two bushels of tares, and half a bushel of oats, per acre ; the oats are deemed advantageous in supporting the tares at a small distance from the ground.

Mr. Spear of Monkton, sows one bushel and a half of tares with two pounds of the seed of the dwarf rape, which at the same time supports the tares, and adds, in
his

his opinion, to the value of the food. In a field which was cropped in this manner, a small part was sown with rape only, and this part produced a great number of thistles, though there was scarcely any among the tares.

Mr. Boswell of Piddletown observes, that tares are generally considered to produce an injurious laxative effect on horses, if given to them before they are podded though, in the opinion of others, a moderate effect of this kind may prove rather beneficial than otherwise.

Tares are sometimes sown with the intention of obtaining a crop of turnips, or in order to sow wheat after them in the same season ; but it is not deemed a good practice when the land is very foul, the succeeding crops often suffering more injury than is recompensed by the value of the tares. Yet it may be questioned, whether the occupiers of clay soils, who cannot grow turnips to advantage, and who prefer to sow wheat after summer fallow, can adopt a better system than to sow one half of their fallow with winter tares, and the other half with tares and rape, in the month of June. A skilful farmer would be thus enabled to clean the whole of the land previous to the wheat seed time, and obtain a valuable crop in addition.

Mr. Bridge of Winford says, three bushels of tares per acre are not too great an allowance of seed, as they are never seen too thick ; they are generally followed by wheat, and he thinks them, in that case, very useful in mellowing and lightening strong land, though they cannot be useful in that way upon light soils.

With respect to the utility of tares on strong land, there are scarcely two opinions in this county ; but in light soils the case is different : there are none, perhaps, who think the texture of the soil is benefited by their use, though there are many who believe that ray-grass

layers will not produce a worse crop of wheat, on account of the tares having preceded it; especially if care be taken to leave but little of the haulm behind.

On some strong bottom lands between the chalky hills, Mr. Bridge sows winter tares in the following course of crops: first year, turnips; second, barley; third, winter tares, fed or mown, and followed by turnips; fourth, turnips, fed early; and fifth, wheat, which bears late sowing in low situations.

Mr. Bridge says, hay made from tares is often very good, but the crop is seldom applied to this use; it is sometimes fed with sheep in the field, and sometimes cut and carried away for soiling horses, &c.; an acre is worth for feeding about 3*l.* or 4*l.* in general, and the seed is commonly 8*s.* to 10*s.* a bushel.

This gentleman finds it very necessary to plough twice after tares, when the land is intended for turnips, otherwise it does not become sufficiently pulverised, and requires an infinity of harrowing.

Mr. Newman never gets a good crop of wheat after tares; this is indeed a general complaint, as it is also of turnips after tares. Mr. Newman prefers buck-wheat to tares for sheep-feed, and obtains six bushels of wheat per acre more after buck-wheat, than he does after tares: he finds buck-wheat equally as useful in fattening sheep as rape.

SECT. XI.—LENTILS.

MR. ILOTT supposes this plant is the same as that which is called *dill*, in the Midland Counties, and makes the following remarks on its cultivation: "I have never seen any in the county, though there is no doubt but its introduction would be attended with great utility to many farmers: it grows well upon light friable soils, and is a good kind of food for ewes after lambing: the proper time for sowing the seed, extends from the middle of March to the middle of April, and the quantity of seed is from two bushels to two bushels and a half per acre. In a favourable season it will produce a load and a half per acre. The price of seed is generally that of spring tares."

Mr. Bridge of Winford, tried once the cultivation of lentils, but they came up ill, and were discontinued.

SECT. XII.—"BUCK-WHEAT,

"Is sown by many farmers to be ploughed down as a manure; some get a crop at an early season, by sowing the seed in May, and after ploughing in the crop, sow the land with turnips in July; others sow the buck-wheat in June, upon lands intended for wheat; and in this case the crop is commonly ploughed down some time in August, the land is closed with a roller, and the wheat sown in September upon the stale furrow. This is found to answer in different degrees, according to the seasons and the skill of the cultivator; however, the practice increases in the neighbourhood of Blandford. I have

never seen a skim-coulter used in this county for ploughing down green crops. I have one, but have never used it; and much of the soils in this neighbourhood are too flinty and stony for that implement."—*Mr. Ilott.*

Mr. Stent of Morden, observes that buck-wheat is much sown in that neighbourhood, particularly by small leasehold farmers: it is used for the purpose of a green manure in general, and, though useful on heavy lands, he thinks it makes sandy soils too light; when it is intended to plough in for wheat, about one bushel and a half per acre is sown at the end of June or beginning of July, and ploughed down in full blossom at the end of August, care being taken to roll the crop down previously to the land being ploughed, the roller moving in the same direction as the plough is intended to follow.

Mr. Stent adds, that two bushels of seed are generally allowed when buck-wheat is sown in May, with the intention of letting it stand for seed, which is then ripe at the same time as barley. The ordinary produce is about 40 bushels per acre, worth from 6*s.* to 7*s.* a bushel: it is mostly consumed by fowls, or stacked in woods to be given to pheasants, &c. in the winter. When it is given to pigs, it is necessary they should have some pease at the latter period of their fattening, or the bacon will boil out, and prove very indifferent food.

Mr. Newman's process for buck-wheat, is to lay long dung on the land, about ten pot-loads per acre, and sheep-fold upon it, then plough in the manure, and sow one bushel of seed per acre in June, or the beginning of July. He has tried the ploughing in this crop as a manure, and decidedly disapproves of it: in an experiment made for the purpose of ascertaining its merits, a
part

part was ploughed in, and a part was cut and carried off, and the latter produced far the best succeeding crop of wheat.

It has been observed under the article of tares, that Mr. Newman approves of buck-wheat as an article of food for sheep; it is seldom, however, applied to that use in this county, while there are a great many instances of its being grown merely for the purpose of manure.

How far it may answer in some cases as a manure, is difficult to determine, but there seems little reason to expect much benefit from any process that will make light soils still lighter, though the vegetable matter will, without doubt, prove of some utility in itself, in all kinds of land. It may also admit of much doubt, whether any crop which can be applied to the support, or fattening of cattle, ought to be buried under the soil, where its merits, if not equivocal, are certainly of no great magnitude.

SECT. XIII.—RAPE, OR COLESEED.

THIS crop is cultivated in the same manner as turnips: the time of sowing is June and July; the quantity of seed $2\frac{1}{2}$ lb. per acre, and the estimated value from 30s. to 50s. per acre.

Mr. Bridge says they will not pay more than from 20s. to 30s. an acre for sheep feeding, and the usual price of the seed is about 35s. a quarter.

Mr. Newman prefers rape to any other green crop, both as to feed for sheep, and for succeeding crops: he has sown buck-wheat, one bushel per acre, tares, two bushels, rape, 4 lb., and turnips, 2 lb. per acre, in the same field; and from the land where he had rape and buck-

buck-wheat, he had six bushels per acre more in the succeeding crop, which was wheat, than he had from the land which he had summer-fallowed, dunged, and sheep-folded, and all within the same furlong. Mr. Shaw of Spettisbury, sowed about ten acres of rape in the beginning of June; the land being manured with long stable-dung from Blandford. The crop had a bad appearance at first, but after being hoed it prospered; it was fed with lambs, and they were improved for sale far beyond Mr. Shaw's expectation. From the crop having been sown too thin, the fly had materially injured it.

Mr. Bridge, of Winford, says rape should always be thick on the ground, 3 lb. of seed being not too much; he sows it about the end of May, for feeding lambs, which are turned in about the end of July. It is esteemed an excellent, and very healthful food for young lambs, but is not often sown, unless by mixing it with turnips.

Mr. Shaw of Spettisbury, often sows rape on the second year's clover-ley; 3 lb. of seed is sown per acre, and the time of sowing is from the beginning to the 20th of March; the rape is hoed twice, being set out at eight inches distant, and fed off in July and August. The dwarf rape seems to be in general use.

Mr. Ilott says, "coleseed or rape is much cultivated by all the best farmers in the county, as food for sheep, but never for seed. The sowing commences as early as the beginning of April, and the early crops being fed off, the land is afterwards sown with wheat, which generally succeeds well. I have never seen it transplanted or drawn, to be consumed in another place. It is excellent for lambs after they are weaned, to get them in flesh for market."

SECT. XIV.—TURNIPS, AND RUTA-BAGA.

THIS kind of crop, which is of the very first importance in the cultivation of light soils, is comparatively of late introduction in the county of Dorset.

Mr. Park of St. Giles's, who has been many years land steward to the Earl of Shaftesbury, says, that thirty years ago it was common for the farmers to say *they could not live by turnips*. At this time a gentleman, whose name Mr. Park did not recollect, cultivated some turnips, and gave them to some farmers, free of expense, that they might thus ascertain their value. Mr. Park adds, that late as they were in beginning to sow turnips, the improvement of the county, by these means, has been very rapid of late years. There is, however, much still remaining to be done; Swedish turnips have been introduced into perhaps all parts of the county, but the quantity of them which is cultivated, is very trivial, and though, perhaps, it may be said that turnips are now generally hoed, there are nevertheless many exceptions.

The following observations by Mr. Flött, on the culture of turnips, are well worthy attention.

"They are sown upon all sorts of soils which the county contains (except a small portion of stiff clays), and which consist of sand, gravel, stone rush, gravelly and clayey loams, light chalks and flints, and strong chalky and flinty loams, &c.

"*The Tillage*—Given for this crop, depends upon the state of the land; the first ploughing commences in the autumn, as soon as the wheat sowing is finished, and the fallow then lies untouched till after the barley sowing
is

is finished in the next spring, when it receives a cross-ploughing, and if no more ploughings are necessary, it is then dressed down (harrowed) previous to the seed-earth being given, which takes place with the most expeditious farmers, either in June or the beginning of July, but it is delayed by some to a much later period, and generally to a great loss, in the weight of the crop per acre.

“By many of the best flock-masters, instead of the whole of the land intended for turnips remaining in a state of naked fallow through the winter and spring, much of the stubble land is ploughed as early as possible (even before the wheat sowing is finished), and the land sown to rye, winter barley, winter tares, &c. as a spring food for sheep, and the same lands are sown to turnips as soon as possible after the crop is fed off: this is a good practice upon all light soils, and is much in use by Mr. Budden, of Lanston, and most of the good farmers in the upland districts.

“*Manuring.*—Very few farmers in this county manure for turnips, instead of which they lay the greatest part of their dung upon the lands intended for wheat, which is certainly a defect in the husbandry of Dorset, as all manure should be applied for the production of vegetable green crops; and if, from its operation, weeds should spring up, they are easily got rid of by good and repeated hoeing, the want of which is the great defect in the practice of many of the worst farmers, and which the fine yellow bloom of the charlock in the month of August, fully demonstrates. But this is not the case with the best cultivators, who fully attend to the after-culture of the crop. I myself always manure for turnips,

nips, ploughing it in at the latter end of June, and in July, and sowing the seed immediately upon the fresh earth.

*“ Drilling of Turnips—*Is not practised, except in a very small way.

“ Various sorts of turnips are sown, similar to those of other counties: for early feeding, where the land is intended to be sown with wheat in the same autumn, the tankard, and the globe turnip have been found the most useful; and for late feeding, the white, and green round, or the stone, or stubble turnips, will answer best.

*“ Seed—*From two to three pounds per acre: the latter quantity is preferable, as turnips in their infant state are always found to answer best when the land is well stocked with plants, and which obliges the hoers to cut the whole of the surface of the soil, when it undergoes the operation of hoeing.

*“ Rolling—*Is often practised, and sometimes proves serviceable upon light porous soils, and the plants will frequently grow faster after that operation has been performed.

*“ Harrowing—*Of the young turnip plants is always beneficial to the land, as well as to the growing crop, where there is a sufficiency of plants to admit of the practice, previous to the hoeing process.

“ The fly is one of the greatest enemies the turnip plants have to encounter, and I know of no preventative; the best is probably good cultivation and plenty of manure; however, one season I soaked the seed in oil of turpentine and train oil, and found nothing of the fly, but did
not

not attribute my good luck to the oil, as I have always been fortunate enough to get a sufficiency of plants; but the depredations of the fly are oftentimes severely felt in this county.

*“Steeping the Seed—*To give it more moisture, is often serviceable in dry weather; and when the land ploughs light and mellow, I have often found it a good plan to deposit a part of the seed under furrow, in dry seasons, to secure its vegetation.

*“Hoing of Turnips—*Is performed by manual labour, at the expense of about 6s. per acre, with one gallon of good ale, and more farmers are anxious to get their crops hoed than formerly, finding the benefit of the practice, from the extra weight to be obtained per acre: some few go to the expense of hoeing a second time, and find it to answer extremely well; and there are a few slovens who never hoe their turnips.

“The turnip crop is generally consumed by sheep, on the land where it grows, by hurdling off a fresh allowance every day. Some few farmers draw the turnips a few days previous to their being given to the sheep, thinking it will prevent their being blown or swelled by their use, but I never found any inconvenience from their having the tops fresh and green. The good effects of feeding a crop of turnips off, upon the land where they grow, is great and very perceptible in the after-crops, and their value as food for stock, may be reckoned from 30s. to 60s. per acre, which is as much as any person can afford to give for an acre to be fed on the land where they grow, taking the season throughout.

*“A few farmers draw a part of their crop, and cart the turnips to other lands for their stock, which but seldom
pays*

pays for the extra expense and trouble; and some few farmers make it a rule to house a proportion of their turnips, which are either given to fattening beasts in the stalls, or to ewes and lambs, at, and after the lambing season, which answers well for the stock, but the land from whence they are drawn, is sure to tell of it, by the difference in the corn crops, and artificial grasses which succeed.

“Stacking and housing of turnips, as I before mentioned, is but little practised in this county, for the preservation of the root from the frost, &c. but I have seen a plan adopted, (and which I have frequently made use of myself), to preserve the root from spoiling, and to prevent the top from running up to stem in the spring.

“In the month of February, or March, or as soon as the tops begin to shoot up, women, &c. are employed to draw the whole crop, and set the turnips down again upon the land, where they grew; this prevents their running to seed-stems, and the roots will remain good, though if they continue long before they are eaten they will become a little shrivelled, but so long as sheep, or cattle, can get at one of these roots, they will not touch any of those which are fresh, and which have not been drawn. This practice also prevents the turnips from drawing, and otherwise much injuring the land at that season of the year.

“*The Ruta-baga, or Swedish Turnip*—Is not so generally cultivated in this county, as in many other light arable sheep districts, neither is it so generally planted for animal feed upon the better sorts of soil, as in some other counties, but from its great utility as food for cattle and sheep, during the spring months, when the common turnip is but of little use, from its running to seed, or on
account

account of injury received from frost, its cultivation in a more general way (except upon thin chalky soils), would well repay the farmer for his expense and trouble. Soils of a loamy nature that are dry, and work mellow, are certainly the best adapted to the growth of the Swedish turnip; or any of the free-working soils, with a proper depth of mould for the tap-root to enter into, and well manured, will answer very well for its production; but wherever the stony or chalky subsoil lies very near the surface, there is an uncertainty of procuring a good crop, on account, as before said, of its being a tap-rooted plant.

“ The tillage is the same as for the common turnips, but the ruta-baga requires a plentiful allowance of manure (unless upon very rich soils), and should be sown after the rate of three or four lbs. of seed per acre. I most approve of the yellow sort, and the best time of sowing is the month of May. I have never seen them transplanted, nor horse-hoed, but from their being sown early they should always be twice hand-hoed. Under the above circumstances, of tillage, manuring, hoeing, &c. upon strong chalky and flinty loams, I have grown very fine crops of them, and have always applied them to the feeding of sheep in the spring months, and their value in comparison with the common turnips, is as three to two in favour of the Swedish, when the crops, are to appearance equal. Hares are fond of them, which is a reason why I do not plant them more generally, being surrounded with plantations. I have this year sown a mixture of one-third of *ruta-baga* with all my other turnips, instead of rape. My crops of corn are usually as good as after the common turnip, for if they draw more from the land, the extra weight of food per acre, returns more manure to the land again.

“ It

"It is probably their being fed off too late, that occasions the opinion that they injure the land, which the common kinds will do still more if kept till the same time.

"Every one must be aware that any roots standing late in the spring, must necessarily have a greater tendency to draw the land, than if they were consumed at an earlier period. Another advantage of this root is, that it may be drawn, and kept in any way, as long as the cultivator can wish."

As this full and clear account of the cultivation of turnips by Mr. Hott, renders the insertion of many similar observations entirely unnecessary, only a few of a miscellaneous nature shall be added.

Mr. Bridge of Winford, always manures for turnips, and he finds that which is made from oil-cake feeding, remarkably the best; six *pot-loads*, he thinks, is amply sufficient to manure an acre, and the manure is worth 8s. a load.

Mr. Bridge was honoured, some years since, with a silver cup from the Bath Society, for the best crop of turnips. He drilled some in the Northumberland mode a few years ago, but did not obtain so great a weight per acre as by the ordinary mode, which he ascertained by weighing them two years together. He prefers the red-round turnip, on account of its being the hardest kind next to the Swedish turnip, which latter does not break out the teeth of sheep in any great degree, so as to prove (as is often said) any serious obstacle to their culture. He adds, that 2lb. per acre is a sufficient quantity of seed; that rolling is useful in a dry season to keep moisture in the land, and press down the manure, but injurious in wet weather, causing the land to cake, in which case the turnips will never thrive; that the land

is generally harrowed previous to hoeing, which is always done twice if possible; that turnips should be set out from nine inches to a foot apart, but when desirous to grow large for early feeding, they may be fifteen inches asunder, though he thinks 12 inches a sufficient distance for the Swedish kind.

Mr. Bowker of Charborough, has some turnips sown on a new plan; the seed was *broad-casted* on a field regularly manured, and the earth, manure, and turnips were afterwards rolled into a kind of irregular rows by means of the double mould-board plough. They were set out by hand-hoeing crossways, and the intervals cultivated by turning the mould from the rows, and then moulding them up again, in the same manner as Mr. Barker cultivates beans, pease, &c.

Turnips are cultivated in the Northumberland mode at Bexington.

At Symonds bury, and other places in the vicinity, turnips are often sown after flax, which is cleared off the land at the end of July; but these and other kinds of stubble turnips are seldom hoed, even by the best of the farmers, partly on account of want of hands, but mostly on the supposition that they should stand rather thick at that time of the year.

There is, however, a real scarcity of turnip hoers in some parts of the county, mostly in the western parts, and several instances have occurred, where the farmers have preferred ploughing up a very weedy crop, and sowing the land anew, rather than go to the expense of hoeing it. In some places, where the land is almost covered with flints, it is not an easy task to hoe it with propriety, and in these cases, there are farmers who contend, that nearly as good and regular crops may be obtained

tained by the use of heavy harrows, or drags, applied in various directions, till the crop is thin enough, as by any other means.

Mr. Sampson of Kingston Russel, observes that the turnip crop is remarkably precarious on his farm, and others similarly situated, in which the greater part of the arable land lies on the southern declivity of the hills, and is thus much exposed to the effects of the south and south-west winds. It is generally remarked in this as well as other counties, that the northern slopes of the hills, are deemed to produce the best crops of corn as well as turnips.

Turnips are hoed at Dulesh, at 7s. per customary acre, and a gallon of beer; and the price in other parts of the county varies from 6s. to 8s. and a gallon of beer or cyder. The average expense of a statute acre is not less than 8s.

On the poorer kinds of soil, it is common to sow one pound and a half of turnip seed with half a pound of the dwarf rape-seed, and it seems to be generally allowed that rape is a much surer crop than turnips where the soil is thin.

When rape is sown amongst early turnips, they are left rather thicker on the ground than might otherwise be the case, and are afterwards thinned in some measure, by lambs in the autumn, which pick out the rape, and leave the turnips, but there are some who think rape should not be sown with early turnips, though they generally mix it in all the late crops. Notwithstanding the high encomiums which many pass on the nutritious qualities of rape, there are many who believe it to exhaust the soil.

Mr. Billet of Warmwell, observes, that where a good crop of turnips is expected, the sowing should not be later than the 6th of July, on chalky soils, though where

the soil is sandy, early sowing, he believes, is not equally necessary. There are many other farmers in the county, that prefer sowing their common turnips in June, and assert that the coldness of those elevated chalky soils, together with the south-west sea breezes, cause frequent disappointment to attend the late sown crops. If the growth of the common turnips is apt to meet with an early check, it is certainly less remarkable, that the Swedish kind is not much cultivated, as it is not easy to get the land ready for their reception in May, when it is said they ought to be sown, though their seed time often extends a week or more into July, in the midland counties.

In the vicinity of Shaftesbury, few turnips are grown, and those either of the tankard or the Swedish kind, which are preferred on account of their being less liable to be stolen.

At Stalbridge is some good turnip land, but very few are sown, and even the few that are sown are seldom hoed, not even when grown in gardens. Turnips would seem to be a great novelty in this neighbourhood, as it is said that even the Swedish sort are stolen. In other parts the depredations of hares, rabbits, and wood pigeons are said to be serious obstructions to their cultivation.

Mr. Ottan of Wootton Fitzpaine, had six acres of Swedish turnips in 1810, which were sown after the rate of three pints of seed per acre, and thinned by dragging crosswise, &c. as much as was necessary; no person in the neighbourhood understanding the art of turnip-hoeing. It appears, indeed, that those who do understand that art, together with their employers, entertain ideas on the subject, which are not generally prevalent in other parts of England. Some farmers of large property do not scruple to assert, that turnips are frequently even the better

better on account of not being hoed, having been known to survive in very severe seasons, when many hoed crops were almost utterly destroyed. Many others are lavish in their praises of the excellence of small turnips, which they are careful to obtain by setting out the plants at from six to eight inches distance ; while in other counties a circle of a foot diameter is deemed too little to raise a turnip to its greatest profitable magnitude. There is scarcely any thing less than two square feet of the soil allowed for each plant in the Northumberland mode of drilling turnips, which is so much at variance with the ideas generally prevalent in Dorset, that it cannot be expected to be hastily adopted.

Some of the farmers contend, that their white turnips will grow so large as to be in great hazard from the frost, if they are not left very thick upon the ground ; and yet they assert, that the same soil is not rich enough for Swedish turnips. These two opinions would be deemed inconsistent with each other in many places, but whether that is the case in this county, future experience must determine. A partiality may be seen in this county, as well as others, in favour of the wheat crop ; and this induces many of the farmers to lay nearly all their yard dung on the second year's clover ley, either before or after it is sown with wheat. In consequence of this practice, so diametrically opposite to that of Norfolk, and other well-cultivated turnip districts, the turnip crop is sown almost without any aid from manure, and consequently is not generally worth more than 50s. or 3*l.* per acre. The best farmers of the present day are, however, well aware, that a good crop of turnips is, as it were, the foundation stone of all good husbandry on light soils, and without which neither good barley nor grasses can be expected. Their prejudices are, therefore, rapidly falling

falling away, and many have gone so far as to reserve half their manure for the turnip land, who perhaps a few years hence will reserve all of it for that purpose. When this event takes place, it will be seen what soils in this county are proper for Swedish turnips, and many such will undoubtedly be found.

The prevalent weed amongst turnips in this county is charlock, which it is almost impossible to eradicate by ordinary hoeing; it is, however, less mischievous than the corn marigold of sandy districts, as much of the charlock may be consumed by sheep, and is even deemed healthful.

The drill husbandry is without doubt the most efficacious plan for destroying weeds amongst turnips, or other corn. Such as possess Cooke's drill machine, might easily drill their turnips in 18-inch rows, but they should cause the holes in the cast-iron branches, which take up the seed, to be made larger. The turnips may be set out by hand, and the intervals repeatedly horse-hoed by means of a broad triangular hoe 14 inches wide, or, which is better, by three small hoes; the two which go first being six inches diameter, and leaving an interval of two inches between their internal edges, which interval requires a hoe, to follow the two first, of about eight inches diameter, to clear it effectually. This mode of hoeing is equally applicable to beans, pease, and turnips, all being drilled at 18-inch intervals, by which means a horse can walk between the rows without injuring either.

Mr. R. Bridge of Langdon Farm, and a few others, frequently draw a part of their turnips, and stack them in convenient situations, in long narrow piles, between four and five feet wide, which is about the length of a hurdle. They are surrounded by a double set of the common flake hurdles, the interval between which is filled with straw, and

and the turnips are often covered with thatch. By this means they are secured against the ill effects of frost, as well as the dry weather in the spring, and the farmer is enabled to put in his barley at a more early season.

Mr. Bridge of Winford, transplanted some Swedish turnips this season (1810), in rows of about 18 inches distant, and nine or ten inches asunder in the rows; and by the appearance of the crop, there is no doubt that success will attend the plan, whenever it is practised at a sufficiently early season.

It is a common practice to mow a part of the seeds, and stack the hay in the fields which are intended for turnips, for the use of the sheep in the succeeding winter. This is deemed conducive to the health of the sheep, in counteracting the laxative quality of turnips.

In the open fields, turnips are often sown in the fallow season, merely for the purpose of ploughing them in, before wheat is sown on the same land.

SECT. XV.—CABBAGES.

“I HAVE seen but few instances in this county, where cabbages are planted as a food for cattle or sheep.

“Mr. Bridge of Winford, plants them for his fatting beasts, and I have no doubt of their utility upon strong loamy soils, but upon all light arable sheep farms, where the common turnip, ruta бага, and rape, are cultivated in a proper manner, I think they are not of that utility which some agriculturists imagine.”—*Mr. Ilott.*

Mr. Bridge has grown a few turnip-cabbages, but did not approve of them.

William Salkeld, Esq. of Fifehead Neville, sometimes

grows a few cabbages; and it may be observed, that this plant, if cultivated at all, is mostly confined to such strong soils as are little applicable to the growth of turnips.

Perhaps the supposition that cabbages exhaust the soil, may have arisen from the common practice of carrying them to other parts of the farm; which renders the inference a very questionable one.

SECT. XVI.—KOHL RABI.

THE purple Hungarian turnip has been tried by Mr. Goodenough of Frampton, but was not approved; and some turnips of this kind that were cultivated at Luke Farm were destroyed by the frost. The Kohl Rabi, which has been asserted to be of such a hardy nature as to suffer no injury from the severest frosts of the continent, appears to hold a middle place, in point of hardiness, between the common turnip and the Swedish kind. A few acres have been grown by Mr. Bachelor; they appeared scarcely to grow so fast as the Swedish turnips which were in the same field, and a part of them were destroyed by the frost: they are probably a very nutritious kind of food, and seem to be preferred by hogs, sheep, and hares, before other kinds of turnips: they require no pecking up, as the bulb is entirely above the ground, which, perhaps, may be a recommendation to their culture on dirty clay soils.

The single root on which the plant is supported a little above the surface of the soil is of a woody nature, but it is not large; it is probably as hard as a piece of willow.

SECT,

SECT. XVII.—THE ANJOU CABBAGE.

THIS plant, which is called the thousand-leaved cabbage, on account of the great number of sprouts which it sends forth on all sides, has been cultivated some years by Dr. Talbot, Dean of Salisbury, on his farm at St. Giles's, as also by Mr. Spear of Monkton, and Mr. Young of Horton. Mr. Spear plants them a yard apart each way on the level ground, and cleans the intervals by hand-hoeing: he believes they are very useful as a cattle crop, and superior to turnips in value.

Dr. Talbot's bailiff plants them in rows three feet asunder, and two feet and a half apart in the rows, and moulds them up with a plough; which is certainly a very advantageous practice. The outer leaves are gathered in the autumn, and conveyed away to the cattle in wheel-barrows, &c., and the rest of the crop is consumed in the spring, previous to the common time of sowing lent corn. They may be fed very late in the spring, provided it is thought desirable to cultivate turnips after them; but this will not often be the case, unless the land be in a very foul or impoverished state.

The seed should be sown early in March, and the plants set out in the field at the end of May, or the beginning of June; but they may be planted as late as the end of that month.

SECT. XVIII.—CARROTS AND PARSNIPS,

HAVE been cultivated on a small scale by Mr. Bridge of Winford; but he believes they can only be grown on very deep soils, with a prospect of profit.

Mr.

Mr. Stent has grown carrots on a good deep soil, for the use of the deer in Charborough-park : the seed was sown in June, 3lbs. per acre.

SECT. XIX.—LUCERNE.

THE Dean of Salisbury had six acres at St. Giles's in 1807, which had then stood nine years, and was very good, but rather obstructed by other grasses ; it has been mown thrice every year, and is said to be worth about 8*l.* per acre. The Dean's bailiff does not think it hearty food for working horses : the pigs are chiefly kept on it in the summer, store pigs thrive very well on it ; but breeding sows ought to have other food along with it. In that year the crop produced two loads of hay.

A part of this crop is in rows about 18 inches asunder ; in 1810 it was much decayed, and the intervals nearly covered with what is called *strap-grass*, which is a prevalent weed of the chalky district. The bailiff seems to think the lucerne and strap-grass together make very good hay, and a pretty full swarth of it is obtained at the first mowing. He is further of opinion, that lucerne should be sown broad-cast, as he believes the rows will be infested with this grass, though the intervals may be hoed. It may be truly said, however, that there are few, if any, competent judges of what may be done by drilling, hoeing, and hand-weeding, in good earnest, to be found in the whole county. Judging from the general appearance of this plant, there seems to be no propriety in drilling it with greater intervals than 12 inches.

It has also been cultivated by W. Salkeld, Esq. of Fifehead Neville, and Mr. Wallis of Sutton Pointz.

A good,

A good, deep, warm soil is indispensable in the culture of lucerne; and from this circumstance it probably would succeed well on the deep rich loam in the neighbourhood of Bridport.

SECT. XX.—POTATOES.

ABOUT thirty or forty years ago, this valuable root was only introduced in a very partial degree into the gardens of Dorsetshire; but of late years its cultivation has extended very rapidly, and appears likely to be still further increased. Potatoes are grown on every kind of soil, but the greater part of those which are intended for sale, are cultivated, as a fallow crop, on the rich loams in the vicinity of Bridport, Beaminster, Abbotsbury, &c.

In the last-mentioned parish there are often a hundred acres in a season; the produce of which is principally sold at Weymouth. They are set in May or the beginning of June, sometimes in every second furrow after the plough, but generally in every third furrow, and moulded up in the course of their growth by the double mould-board plough. The rotation of potatoes and wheat alternately has, in some few instances, been continued many years without intermission; and Mr. Hardy of Portisham believes that, on some rich soils in that vicinity, the same course might be continued for a century without injuring the ground.

At Bexington, potatoes are cultivated in drills with manure, and the intervals hoed in the Scotch or Northumberland manner. The potatoes are generally cut into four parts, and the sets are from four to six inches asunder in the rows. The quantity required to plant an
acre

acre is about 24 bushels; and the produce is said to be often as 20 for 1, or 120 sacks per acre.

Mr. Bridge of Winford, grows about ten acres of potatoes per annum, the planting of which consumes about 300 bushels. The white blossomed Liverpool potatoes are mostly used, and large ones are preferred for planting, it being supposed they throw out the most luxuriant shoots, though sometimes divided into five or six pieces.

The time of planting is the beginning of May; the soil is opened in lines by the double mould-board plough, and the sets, (each of which should have two or three eyes), are dropped in by women about 10 inches apart, after which the sets are covered by manure, at the rate of ten *pot*-loads per acre, and the manure is finally covered by the hand-hoe.

The first hoeing commences as soon as the plants are up, and is performed by taking off one of the mould-boards from the plough before mentioned, and using it as a common plough, to turn a furrow from each side of the rows toward the centre of the intervals, which are 30 inches wide. After the ground has remained a fortnight in this state, the plants are moulded up, at one operation, by using both mould-boards, as well as a double-winged share. This moulding up of the plants is repeated a few weeks afterwards, and the rows are hand-hoed as much as is necessary by women, who generally clean about half an acre a day. The crop is taken up about the beginning of November, by passing the implement before mentioned straight up the centre of every other row in the first instance, to leave room to pick them up. If the tops are luxuriant, they must be cut off previous to the crops being taken up.

Mr. Bridge says that they are not much broken by this mode of taking up; and if they are, the cattle may eat the broken

broken ones first. He estimates the average produce at 80 sacks per acre, or two bushels a perch, on land worth 25s. an acre, and subject to tithe.

The crop that succeeds potatoes is generally oats or barley, as the land is too much exhausted to bear wheat.

Mr. Bridge stores his potatoes in a pit five feet deep, which is roofed over from the level of the ground. They are covered with straw under the roof, and care is taken that no wet gets amongst them. They are generally about 6s. a sack, but sometimes much more. In their application to the fattening of oxen and hogs, some are steamed, and some given raw.

Mr. Bridge has an apparatus for steaming potatoes, which consists of a boiler, from which the steam is conveyed under a grate near the bottom of a square apartment capable of containing many bushels at a time. He seems, however, somewhat doubtful whether much advantage attends the steaming process. He is also doubtful whether boiled potatoes mixed with flour, (which he tried in one of the late seasons of scarcity), forms a kind of bread that is either economical or very nutritious.

There are frequently 100 acres of potatoes grown in the parish of Netherbury, and probably more acres of these than of hemp in the whole of what may be called the hemp district: not less than 1000 acres in all, which are supposed to produce 80 sacks per acre. Mr. Conway of this parish, opens the land in drills 18 or 20 inches apart, with the potatoe-hoe plough, and puts in the sets at six inches distance in the rows: he prefers taking them up with the spade. They are hand-hoed at 10s. 6d. per customary acre, and afterwards moulded up with the plough. The long white potatoes are used at Symonds-bury, they are set in every second furrow after the plough. Such of the labourers as have families are allowed

allowed to grow potatoes on their master's fallows, sometimes to the extent of half an acre for each labourer.

The labourers, who generally reside rent-free in the cottages attached to the large farms of the chalky district, are almost universally allowed to plant from one-sixth to one-third of an acre, on some part of the farm, but mostly on that part which would otherwise be appropriated to a crop of turnips.

By this means many families have from 50 to 100 bushels of potatoes in the autumn ; which enables them to keep a pig. In order to induce the labourers to pay due attention to every substance that is capable of fertilizing the soil, some of the farmers allow them no more ground for potatoes than they can manure with propriety. Mr. Portman says potatoes exhaust the ground so remarkably, that it may be seen where they grew to a foot, in a succeeding crop of wheat ; yet were the rule before mentioned strictly attended to, it is not easy to see how any eventual exhaustion can take place. In the Survey of Somersetshire, Mr. Billingsley, who has cultivated potatoes on a large scale, observes, that " the return of manure from the consumption of one acre will be sufficient for two or three," (p. 118). In the Vale of Blackmoor, the labourers often hire ground to plant with potatoes, after the rate of 1*s.* a pole.

The kinds of potatoes mostly in use, are the ox-nobles, champions, and kidneys, which are generally planted in every third furrow, and horse-hoed ; the tops are carried to the fold-yard to make manure, and the potatoes are generally taken up by forks.

The average produce is about 10 tons per acre, from which circumstance the inferiority of this crop to the turnip crop has been deduced ; especially, it is added, when the extra expense attending the cultivation of this vegetable,

table, and the circumstance of its being a great exhauster, is put into the account. It may be observed, however, on the other hand, that 320 bushels of potatoes, at no more than 9*d.* a bushel, would be worth 12*l.* per acre, which is three or four times the value of an acre of turnips in Dorsetshire. They could scarcely be estimated at a lower price than 9*d.* a bushel, for feeding cattle; and if the cultivator preferred rather to sell them at 1*s.* 6*d.* a bushel, he could then afford to expend 12*l.* per acre in procuring manure, to supply the loss which the land had sustained.

Potatoes for winter food should never be planted earlier than the first week in May; the frost is apt to injure them ere that time arrives, but after that period there will be very seldom any frost to hurt the crop; it is not often that potatoes planted earlier than May will keep for the winter's use; the crop not only proves short in quantity, but the quality is, in general, bad and watery.

Mr. Bridge thinks potatoes are not worth 1*s.* a bushel when applied to the feeding of cattle.

SECT. XXI.—BURNET,

HAS been tried by Mr. Bridge of Winford, to the extent of five acres, but he found the sheep would not eat much of it. He says they appear to relish the wild burnet, which is plentiful on some parts of the downs, much better than the kind which is cultivated.

SECT. XXII.—CHICORY.

MR. BRIDGE has also grown a small quantity of chicory, but he thinks the land there is not rich enough for it. He says horses seem fond of it while it is young.

SECT. XXIII.—SAINFOIN.

THE following observations on the culture of this valuable green crop, are supplied by Mr. Hott, to whom this Report has already been much indebted.

“ The greater part of the soil in the upland district of Dorset is favourable to the growth of sainfoin: it consists mostly of a dry, flinty, or thin gravelly loam, upon a substratum, or rock of chalk; and where the latter is not too near the surface, or too hard in its nature, the plant thrives well. It is not customary to manure this plant, the farmers wanting the dung for other purposes. I have seen instances where dung has injured the plant, but coal-ashes are an excellent manure for it, though not often to be obtained in sufficient quantity.

“ The tillage previous to the seed being sown, is similar to that given in most other counties. It is generally sown with the lent crop, some time in March, or the beginning of April, (but the earlier the better), at the rate of four bushels per acre. Drilling the seed is not practised in this county. The crop is generally mown for hay, and mostly given to the sheep stock, and is an excellent kind of fodder when cut before it is fully in blossom, and made well.

“ The

"The after-grass is mostly applied to the support of lambs in the autumn, previous to their being put into turnips, and it keeps them in good health. Sainfoin generally continues to be an advantageous crop from six to ten years, on soils that are adapted to its growth. Harrowing the land to clean the crop from grass and other weeds, is not practised in this county, but it might be frequently done to advantage.

"Old sainfoin layers are always broken up in this county without paring and burning; indeed, some of the flinty soils could not be pared, but there are others of a less flinty nature, that might be broken up by that process, to very great advantage. I am sorry to observe, that many of the proprietors of land in this county will not suffer their tenants to pare and burn, where their lands are ever so favourable to that operation, though in many other instances they are very generous. But to show the utility of the practice, and the good opinion many sensible farmers in the county entertain of its effects, it may be proper to mention the following practice, many instances of which have come under my observation. The sainfoin layers are *rastered* very thin with the common plough; then cross-ploughed lightly, and dragged and harrowed; after which the farmers burn all the turf which they possibly can; frequently observing, that they are aware that regular paring and burning is a good practice, but they are restricted from making use of it by their leases. Sainfoin is renewed at uncertain periods of time according to the circumstances of the farm, but I am of opinion, if this kind of food is wanted, it may be repeated on the same land, with a prospect of its producing a plentiful crop, after a lapse of about 10 or 12 years: but I would by no means recommend a repetition of this plant upon the same ground, so long as there are
DORSET.] T other

other lands upon the farm, that are proper for its production.

“ I recollect an instance in the neighbourhood near where I resided, when I farmed in Oxfordshire, (and which is mentioned in Mr. Young’s Report of that county): Mr. Tuckwell, who was a very near neighbour of mine, at that time, had a piece of two acres, which in altering a field, upon the enclosure, was thrown to another, which was going to be laid down with this grass. The two acres before mentioned had been under sainfoin (to my knowledge) for many years, and had been broken up but a very little time; but, that the field might all be under the same crop, Mr. Tuckwell sowed it with the rest, and it succeeded just as well, and yielded as good crops, as the other part of the field, which was remarkably good.

“ It has been said that wheat often dies away when sown after sainfoin, and which is attributed to worms, or to the weakness of the soil, which is impoverished by the long roots of the plants: but this is not the case in Oxfordshire, or Gloucestershire, where the land is again converted to tillage, by the process of paring and burning; and old sainfoin layers, when so managed, and properly cropped, rank among the best-conditioned lands upon the farms.”

Mr. Billet of Warmwell, sows five bushels of sainfoin per acre, and the same quantity of seed is allowed by several other farmers. He observes it is not common to feed it, until after it has been mown, when it is fed by lambs or sheep till Christmas, but no longer. It remains in the land for six or eight years, but six is long enough, when there is much couch-grass.

It is generally believed to make the land poor, which (as this gentleman observes), is a consequence that may be

be expected, when the whole crop is constantly carried away from the field where it grows for many years together.

He has sown rape after this plant; but the common crop is oats, and it frequently proves a very uncertain one.

The price of sainfoin seed, is mostly from 2*l.* to 3*l.* per quarter.

In the Isle of Portland, sainfoin is sometimes sown in the enclosures, after the rate of four bushels per acre. It remains eight or ten years, and is succeeded by wheat, but the land is not so good after it.

At General Mitchell's farm, at Dewlish, oats are mostly sown after sainfoin, as it leaves the land too tough for wheat.

Mr. Weld's bailiff, at Lulworth, sows three bushels per acre with barley after turnips, and believes it may remain 12 or 15 years, and may then be succeeded by oats, with a prospect of a good crop.

Mr. Stent of Morden, sows about eight lbs. of hop-clover with the sainfoin, which affords nearly the whole of the crop that is mown the first year, and decays as the sainfoin becomes stronger, but rye-grass is never sown with it, as that would remain and destroy the sainfoin. The crop is mown when it is not quite full-blossomed; and the field is shut up till the 18th of September, when it is fed off by sheep in pens, which prevents their rambling over the part which is fed: by the neglect of this practice, Mr. Stent believes the crop is much wasted. He never feeds it later than the 14th of February, that the succeeding crop of hay may not be injured. An acre generally produces one ton and a half of hay, when the crop is not permitted to remain more than six or seven years; and in that case it may be renewed after an inter-

val of six or seven years more. It grows best on chalky land where the soil is not very deep; and it is deemed most proper to break up the old layers in the autumn, and sow winter tares, to be succeeded by turnips, the next spring, or sometimes turnips in the first instance to be followed by oats, and then turnips again.

Mr. Wickins of Mapperton, coincides with the above observations, and adds, that old sainfoin seed should never be sown, as it frequently fails to vegetate. The seed is sometimes as high as 8 or 9s. a bushel.

Mr. Park of St. Giles's, thinks two years turnips should be grown successively after sainfoin, in order to cleanse the land properly. Sainfoin leaves the land very foul, and a crop of oats after it makes it worse.

Mr. Spear of Monkton, remarks that sainfoin seeds should be soaked in water forty-eight hours; five bushels will then produce a better crop than seven if sown dry; even old seed will grow if soaked as above-mentioned. He does not like seed which has been freed of the husks by mills, as it is often injured by being heated. It often endures for ten or fifteen years, and is believed to be improved by folding upon it, but if it is manured, one or two good crops are obtained, and then the plants decay very rapidly. Mr. Portman of Bryanstone, is of opinion, that the same result follows the use of soap-ashes, &c.

In breaking up sainfoin, Mr. Spear ploughs the land for oats before Christmas, and takes a turnip crop after the oats, which are often very indifferent. Some break up by burn-baking, and Mr. Spear does not think any injury follows the practice, unless on very thin soils.

He thinks the average produce for ten years, is a ton per annum, which, to consume on the farm, is worth 50s. per ton.

At

At Kingston, near Wimborne, five bushels per acre are sown, but it is said sainfoin will remain but few years on the warren sands.

Mr. Bridge of Winford, believes sainfoin grows the best on such soils, where the chalk or hard stone lies very near the surface. He sows five bushels per acre, or, if shelled, 70lb. or 80lb. with 8lb. or 10 lb. of milled hop or trefoil. The sainfoin scarcely comes at all to the scythe in the first year, but in the following years it is common to obtain a ton and a half of good hay per acre, which is in much estimation for sheep and horses.

Sheep must not be put into the field in the first year, and the sainfoin should remain only eight or ten years, or it will not bear repeating in less than eight or ten years afterwards.

Wheat, he observes, will not succeed after this crop, but it is common to break it up for oats, and then manure for turnips, &c.

If any kind of manure is used for sainfoin, it is cinder-dust, other manures being apt to introduce other grasses, to the great injury of the crop. About as much seed is raised in the county as is needed for its consumption.

Mr. Ballson, of Athelhampton, has a field of sainfoin that often produces thirty hundred weight of hay per acre, where the grass was of very little value in its natural state. It was a piece of down land, and was sown with tares and turnips, previous to its being laid down with sainfoin.

SECT. XXIV.—ARTIFICIAL GRASSES.

UNDER this section may be included the cultivation of red and white clover, trefoil, marl, or cow-grass, rye-

grass of the common kind, and the true perennial kind, which is brought mostly from Devonshire.

Various mixtures of these grasses, are sown with the Lent crops in most parts of the county; indeed it is very seldom that any of them are sown unmixed, with the exception of broad clover on rich and strong soils, and of these but a small portion are in cultivation.

Clover (observes Mr. Ilott), is generally sown with barley or oats, which succeed a crop of turnips; but in the upland part of the county much of the land appears to be tired of it, and the farmers under these circumstances but seldom trust to red clover alone. They mostly sow a mixture of broad clover, white Dutch, trefoil, and rye-grass, and no farmers in the kingdom make a more liberal allowance of seed.

It is more frequently mown for hay, than in many upland districts of other counties, on account of most of the farms having extensive *ewe leazes*, pastures, or downs attached to them. But upon some farms it is frequently fed, and whenever that is the case, it is hurdled off; the sheep having a fresh patch every day. This is a good practice in this extensive sheep district, as it secures to the flock a regular allowance every day. Some little is seeded, but, probably, not enough for the use of the neighbourhood.

Upon the thin chalky soils, the grasses remain two years, but on the better kinds of land only one, and are, in either case, generally succeeded by wheat, the greatest part of the manure made on the farm, being distributed on the ley-ground previously to its being ploughed up for that crop; which is a practice I neither approve of, nor follow, being of opinion that the turnip crop should have nearly all the dung.

Mr. Bridge of Winford, sows 15 lb. of red clover per
acre

acre on strong vale lands, and finds it always best to mow it twice, when wheat is to succeed it. When the land is tired of broad clover, various mixtures of hop-clover, white Dutch, and rye-grass, or tares, are substituted in its place.

Twenty pounds of milled trefoil are sown per acre, and it is believed to succeed best on light soils.

For a mixed crop, Mr. Bridge allows 6 lb. of white clover, 4 lb. of trefoil, 4 lb. of cow-grass, and one bushel of Devonshire rye-grass. When the Devonshire rye-grass is sown by itself for seed, two bushels per acre are allowed. This grass affords much feed after being mown, but the sheep are believed, in some small degree, to prefer the common kind. One bushel of Devon rye-grass weighs as much as two bushels of the common sort, which contains much *bob-grass*, &c. Oats or tares succeed the leys, which consist of nothing but rye-grass.

Mr. Bridge thinks the value of artificial grasses, either for hay or feeding, is about 9s. per acre. He finds good success attends the sowing of grass-seeds with a crop of flax; he remarks, that when clover is sown a day or two after the crop it is intended to grow with, it should be covered with light harrows, the roller (which is sometimes trusted to alone) not effectually answering that end, while heavy harrows bury it too deep.

At Wareham, Mr. Garland sows 10 lb. of broad clover, 2 lb. of Dutch, 5 lb. of trefoil, and half a bushel of rye-grass. Some people in that vicinity sow two bushels of rye-grass per acre, with a smaller quantity of the other seeds.

At Swyre, 4 lb. of white clover are mixed with two bushels of hop clover and Devonshire rye-grass; or sometimes 12 lb. or 14 lb. of cow-grass alone, or from 4 lb. to 6 lb. with other seeds are allowed per acre. The seeds are generally fed, and remain for two or three

years; the layers are mostly broken up in the spring, and are ploughed three or four times previously to the land being sown with wheat. Sometimes a crop of tares precedes the wheat.

Mr. Goodenough, of Frampton, sows 5 lb. of milled trefoil, 5 lb. of broad clover, and two bushels of Devonshire rye-grass per acre.

This kind of rye-grass is 8*s.* or 9*s.* a bushel, and will last ten or twelve years.

He sows no white clover, because it makes little hay in the first year. The seeds are mown once, and afterwards fed; the hay thus obtained, is frequently staked in the midst of a field intended for turnips, to be consumed by sheep, with that crop. This is the practice of many farmers in the county. Horses are sometimes staked, or tethered on the layers, and a considerable quantity of food is rendered useless by many farmers, rather than forego their favourite practice of dunging and folding for a crop of wheat.

Mr. Goodenough says red clover should always be mown twice, previous to its being sown with wheat; and Mr. Spear of Monkton, goes so far as to assert, that better wheat may be obtained by both mowing and seeding the red clover, than by any other mode. This gentleman talks of the advantages obtained by the fall of the clover leaf, an advantage which he says cannot be so effectually obtained, as by permitting the seed to ripen in autumn. This piece of agricultural theory, however, which has gained much currency in many parts of the country, appears entirely untenable. The physiology of vegetation, though a very obscure subject, is sufficiently understood to render it more than probable, that every vegetable that bears seeds exhausts the soil.

Such plants as turnips, &c. that have very succulent leaves, absorb a large portion of their nutritious parts, either

either from the air, or obtain them from the chemical decomposition of air and water. If this were not the case, how could an acre of turnips be made to produce from 100lb. to 150 lb. of flesh, bone, wool, &c. without the soil being exhausted?

It is, however, an evident fact, that turnips improve the land when consumed in that state; but if turnips, clover, or any other plant be suffered to ripen, the stalks and leaves become gradually dry, hard, and incapable of absorption from the atmosphere; the nutritious qualities, or, as it were, the quintessence of the plant, becomes concentrated in the seed, and, during this operation, the juices having become less watery, a larger proportion of them makes this escape in the surrounding atmosphere, and are wafted away by the winds. Thus it appears almost impossible, that the seeding of any plant can ameliorate the soil: but, on the other hand, it is very probable that the mechanical texture of a stiff soil, such as is adopted to the growth of red clover, may sometimes be injured by the treading of sheep in feeding it. In consequence of this, it may so happen, that the field which is the most deficient in the natural principles of fertility, may, nevertheless, produce the best crop of wheat.

Respecting rye-grass, especially the perennial kind, there is here, as elsewhere; much diversity of opinion.

Mr. Woodman, who is farming bailiff to T. Weld, Esq. at Lulworth, has a high opinion of the merits of the Devonshire rye-grass, both for sheep-feed and for hay, and sees no objection to its use. He sows three bushels per acre, by itself, for the purpose of obtaining its seed in a pure state. The seed is often worth 10s. *i.d.* per bushel, and is larger and heavier than the common sort.

Mr. Samson of Kingston Russel, sometimes sows the
Devon

Devon rye-grass, but he says it often grows again amongst the wheat which follows it, and is in that respect injurious, though it is very proper where land is to remain in grass for some years. He generally sows three bushels of hop and rye, which are naturally mixed from being seeded together. Broad clover is seldom sown by Mr. Samson, as it will not grow high enough to produce a good swarth.

Mr. Willis of Corfe Castle, says the Devonshire rye-grass is not approved; sheep are not fond of it, as is always seen when they are pastured in a field, where they can choose between that and the common kind. Red clover is sometimes seeded in Mr. Willis's neighbourhood, and produces three or four bushels per acre. It is a common observation, that sheep will not eat the Devonshire rye-grass while they can feed on the common kind; yet it is coming into fashion.

In the "Survey of the County of Somerset" it is said, that "the true perennial rye-grass, which is in every respect superior to the common sort, was first carefully selected and cultivated by Mr. Peacey of Northleach, in Gloucestershire."

Mr. Spear of Monkton, supposes that the kind of rye-grass which is generally called *Devonshire rye*, or *Devonshire ever*, in that part of Dorset which is contiguous to the county of Devon, is similar to that which was cultivated by Mr. Peacey, and he entertains a high opinion of its merits; it becomes green again soon after mowing, and produces much feed, while the common kind looks as brown as a stubble, and he never finds it pernicious by growing amongst the wheat, if the land be harrowed down properly after ploughing. Mr. Gould of Kingston, near Wimborne, is of the same opinion as Mr. Spear with respect to this kind of rye-grass. Mr.

Billet

Billet of Warmwell, prefers the Devon rye for sheep-feed, and observes it does not get *sticky*, like the common sort. He sows one bushel per acre with other seeds.

Mr. Kippon of Upway, has not found that sheep dislike the Devonshire rye-grass, one bushel of which, he thinks, is enough to seed an acre, even if sown by itself. In one instance, he sowed half a bushel per acre of this kind of seed with red clover, and though the latter missed, he had a good crop of grass. Mr. Groves of Luke Farm, in Abbotsbury, sows one bushel of Devonshire rye-grass per acre, and believes it is much superior to the common sort. He has saved it for seed in the second year after it was sown, and obtained 28 bushels per acre, worth 6s. 6d. per bushel. He sows four or five pounds of broad clover, and two or three pounds of white, with rye-grass; or sometimes five or six pounds of white clover, without any mixture of red.

Mr. Ottan of Wootton Fitzpaine, often keeps the land under grass-seeds for six or seven years. He sows six pounds of broad clover, two pounds of white Dutch, two pounds of trefoil, and two pecks of *ever*, or rye-grass. Some sow two bushels of rye-grass, but he believes it is best to sow but little on good ground. Devonshire rye-grass is often grown purposely for seed on new-broken grounds, such as furze, brakes, &c. A peck of this seed, according to Mr. Ottan, weighs nine pounds, and is worth as much as a bushel of the common sort.

Mr. Groves of Bettiscombe, and several other farmers, recommend beginning to feed mixed seeds very early, by which means their running to seed is prevented, and more food obtained. He says it is common to sow three bushels per acre of the Dorsetshire rye-grass, while some sow only three pecks of the Devonshire kind; which was worth 9s. a bushel in 1809. The Messrs. Hardy of Portisham,

tisham, and several other gentlemen, are advocates for the Devonshire rye-grass. On the whole, there seems to be little doubt of its superiority over the common kind, which is generally debased by a mixture of pernicious grasses, and produces little feed after the spring. Sheep have so little attachment to the common rye-grass, as generally to refuse the seed stems, unless at a very early period of their growth.

The Devonshire rye-grass produces seed of a deeper colour and larger body than that of the common kind. The leaves of this plant are also larger and more numerous; and if, as is very probable, the plant which bears the smallest leaf is preferred, in some measure, by sheep, yet this objection is much overbalanced by a superiority in bulk, and a longer extended period of luxuriant vegetation; which are qualities acknowledged to belong to the Devonshire, or Peacey's rye-grass.

The common rye-grass has been long complained of, as an improper plant for seeding fields which are intended for permanent pasture. It obstructs the growth of all the valuable natural grasses, while its own produce is very trivial. This is, however, by no means the case with *Peacey's rye-grass*, which is used in this county either for temporary or permanent pastures. In the latter case, it gives way, after a number of years, to the natural grasses of the soil, many of which are scarcely superior to itself, either in respect to abundance of produce, or any other good quality: and in the former case, the rye-grass layers show a freshness of verdure at the time they are ploughed up, more resembling old pastures, than the brown and dingy layers where the common rye-grass has run to seed.

Mr. Willis of Corfe Castle, thinks *cow-grass* a good substitute when the land is tired of red clover, and he has
seen

seen it produce three loads of hay per acre under such circumstances.

Mr. R. Bridge of Beaminster, believes cow-grass will remain in the land seven years; but it does not grow so much as red clover, nor produce more than one crop of hay in a year.

At Portisham, cow-grass is said to last four or five years.

Mr. Alner of Piddletown, thinks cow-grass an excellent article for soiling cattle, &c.; and he says it produces a later crop, but a more abundant one, than red clover.

It appears, by information received from several quarters, that hop-clover or trefoil is seldom sown upon clay soils. In some other parts of England, a mixture of trefoil with red clover is deemed to improve the quality of the hay; and there are some clay loams that naturally produce much wild trefoil.

J. Wood, Esq. of Osmington, feeds his broad clover till the middle of May, when grass becomes plentiful: the field is then shut up till the clover is coming into flower, when it is hurdled off in large folds, and fed with lambs only. The lambs are put in about five o'clock in the afternoon, with the intention of their eating a part of it, and treading the rest down to the ground; to effect which purpose more completely, they are sometimes driven round the fold.

After this has been done, the fields are gone over again with a larger fold; and Mr. Wood states, that by this means he is enabled to sow more wheat, and to obtain good crops from the clover leys that would produce but little without this process.

According to Mr. Stent of Morden, and Mr. Wickins of Mapperton, the crop of hay obtained in the first year from mixed seeds, is about a ton per acre.

The

The sheep-feed in the autumn after the crop has been mown, including also a little consumed in the preceding autumn, is believed to be worth about 20s. per acre on the average. The second year's seeds are of small value, being estimated at only about 15s. per acre, for the use of folding sheep early in the summer, before the herbage is spoiled by sheep folding and yard dung.

Mr. Crane of Cerne Abbas, frequently sows a mixture of *hop and rye* (as it is termed); but sometimes he sows broad clover by itself, at the rate of 15lbs. per acre, and which is mown twice for hay, and occasionally seeded.

In the Vale of Blackmoor, red clover is the sort most commonly cultivated, as is the case in other clay districts: it is frequently mown both for hay and seed in the same season. At Ryne, and some other places in the Vale, white clover has lately come into use.

Mr. Gillingham of Shaston, says a crop of red clover often produces 30 cwt. of hay, worth 3*l.* a ton, and is occasionally seeded; in which case perhaps the average produce of seed may be about two bushels per acre.

Mr. Bridge of Kimmeridge, in the Isle of Purbeck, observes that no kind of clover will succeed in that neighbourhood: it has been known to come up well, but dies away afterwards. The land is not tired of it, because none is sown.

The Rev. Mr. Dampier, of Langton Matravers, mows clover the first year, and after feeding it a little in the next spring, fallows the land for wheat.

At Swannage, sometimes 10lbs. of broad clover is sown for a crop, or 5 or 6lbs. of red clover, with an equal quantity of milled hop, and one bushel of rye-grass.

SECT. XXV.—HEMP.

THE culture of hemp in this county is very much increased of late years, as might be expected from the high price it has borne in consequence of the shutting the ports of the North of Europe.

The amount of the bounty paid upon hemp, at 3*d.* per stone of 14*lbs.*, between 1782 and 1792, was 98*l.* 7*s.* 6*d.* on the average; from which it appears that the produce was 7870 stone weight per annum, and the extent of land annually under this crop was believed to be about 170 acres *. At the present time, in the opinion of Mr. Roberts of Burton, and some others, there are from 4 to 500 acres of hemp grown in the county on the average, and about ten times as many acres of flax. According to Mr. Conway of Netherbury, hemp is only cultivated in 13 parishes in the county, viz. Bridport, Lodgers, Bradpole, Powerstock, Symondsbury, Chidioc, Bothenhamp-ton, West Milton, Walditch, Stoke Abbas, Beaminster, Netherbury, and Abbotsbury.

* Amount of bounty paid upon hemp, from 1782 to 1792 inclusive.

<i>Years.</i>	<i>Stones.</i>	<i>Amount.</i>
		<i>£. s. d.</i>
1782	5911 at 3 <i>d.</i>	73 17 9
1783	6371	78 7 9
1784	7439	92 19 9
1785	4754	59 8 6
1786	8658	108 4 6
1787	10,556	131 19 0
1788	9645	120 11 3
1789	11,245	140 11 3
1790	13,750	171 17 6
1791	443	5 10 9
1792	7899	98 14 9
	<u>86,571</u>	<u>£1082 2 9</u>

The

The Soil.—Most adapted to the growth of hemp, is a rich dark-coloured warm and deep loam. The soils where hemp is grown in this county are deep loams of a reddish colour, and termed fox-mould. They consist of a large proportion of very fine-grained sand, and are of great natural fertility; but scarcely tenacious enough in general to produce good crops of beans.

Major Travers of Loders, observes that such of the lands in that parish on which hemp is grown, would be worth, if let separately from the farms, not less than 4*l.* an acre.

Mr. Strong of Powerstock, says hemp will not succeed on hilly ground, though of a good loamy kind. In a trial of this kind, the hemp grew only two or three feet high, though a good crop generally reaches the height of six or seven feet.

The hemp-growers seem to be unanimously of opinion, that hemp cannot be advantageously grown on soils that are not naturally almost rich enough to make good gardens; and that the notion entertained a few years ago, that it would succeed on any kind of soils newly broken up, is entirely erroneous.

Mr. Travers observes, that the growth of hemp was not deemed profitable, before the late high prices of that article added an additional stimulus.

Tillage.—The land should be ploughed three times; the first time at Candlemas; after which it is dunged; the second ploughing is performed about the beginning of May, and is followed by repeated harrowings; the last ploughing takes place near the end of May, when the furrows are *righted*, or pecked across with hoes, to fill the *slacks* or hollows between the furrows, that the seed may
not

not grow in lines, but come up as *suant* or regular as possible.

Manure.—Should be very liberally supplied; an acre should be dressed with 20 pot-loads of yard dung, 20 hogsheads of lime, and have a good folding besides, though the latter may be omitted.

Major Travers thinks it absurd to prohibit the growth of hemp, for he says it is well known that much manure must be purchased, or the crop will not prove a profitable one. Under these circumstances several hemp growers concur in the opinion that hemp cannot injure the ground, yet their sentiments on this subject seem to furnish no foundation for that whimsical theory, that hemp does not exhaust the soil, because its thick shade keeps the sun from it. The ample manuring which hemp requires, furnishes a most undeniable proof of its exhausting nature, yet it does not follow from this, that very good crops of wheat cannot be grown after it, or that its growth should be prohibited on rich soils.

Seed.—The common quantity is two bushels per customary acre, of 134 statute perches. The average price per bushel is about 10s. but sometimes as high as a guinea.

Sowing.—A pole wide is sown at a *bout*, or in going and returning. The land is sometimes set out at regular distances with sticks, and the sowing should be performed very carefully. The roller should be used to make the land very fine before it is sown, but not afterwards. The seed is covered by harrows, going and returning in the same place.

The time of Sowing—Is generally near the end of May, but includes the last week of May, and the two first of June. It is preferable to sow when the land is moist, that all the seed may begin to grow at the same time.

The young plants are often destroyed by the fly, and by slugs.

Weeds.—The hemp crop seldom or ever requires weeding, because the rapidity of its growth probably prevents the vegetation of many weeds, and certainly over-shadows and deprives them of their nutriment so much as to render them very diminutive.

It is believed by some, that it is the very best preparation for wheat, infinitely preferable to summer fallow; and others go so far as to maintain that it is not unfrequently sown on foul land to clean it. On the contrary, hemp will not succeed at all on foul land, and though it certainly does not clean the land, it affords the farmer an opportunity to do it, in the whole of April and May.

The extraordinary allowance of manure, makes it sufficiently obvious in what manner hemp proves an excellent preparation for wheat, without ascribing much to the effects of shade, &c. The land is observed to be very dry where hemp has grown, after it is pulled; the broad leaves and stems of that plant receiving so much of the rains and dews, as to leave but little moisture to come down to the soil in summer. The same consequence is observable, wherever there is a thick bunch of thistles, on an otherwise, naked fallow. This part is always much drier within, than the part continually exposed to the exhausting effects of the sun and wind; and the principal

pal cause of its dryness seems to be the very great quantity of moisture which is taken away in the process of vegetation.

Pulling and Tying, and Grassing.—The summer, or *cinder hemp*, is called *femel hemp* in some parts of England, and is the male or barren kind, which produces no seed.

This kind of hemp composes about one-fourth of the crop; it is pulled up about nine or ten weeks from the time of sowing, and the proper time of this operation is shown by the heads becoming yellowish and dusty, which happens about a fortnight after the flowers open. This work is done in a manner by which the necessity of trampling down the seed hemp is avoided as much as possible; the first operation consists in making pathways, at about ten or twelve yards distance, by pulling up both the summer and the seed-hemp. After this a set of people take their stations at such distances as they can conveniently reach, to select out the summer hemp, and hand it, from one to the other, to a person in the open pathways, who conveys it to some adjoining grass-field that has been mown, or fed, and lays it in lines very thinly, in the same manner as wheat is laid by the reapers.

The Seed Hemp—Is pulled up about the beginning of October, and is set up to dry, by fastening together three small parcels which cross each other near the top.

Hemp is never watered in this county, or put into pits to rot in some measure, as is the case in other districts, but is merely *dew ripened*, by lying three or four weeks on grass land in summer, or on stubbles in the autumn, after the seed is thrashed out. In very wet

weather much care is required to prevent its being spoiled; sometimes it is set up end-ways in a conical form, but it is generally turned two or three times with a long stick rather bent at the end, and in the turning, when it is laid close, every swath is put nearly into the place of that which was previously turned.

The Seed—Is thrashed out on a Dorsetshire flake-hurdle, by two men with light flails, the parcels of hemp being held across the hurdle, and turned about by a woman who is seated on a stool: the hurdle is laid on a *jib*, or frame about 18 inches high, and underneath this is spread a winnowing sheet, upon some straw.

The produce of seed, Mr. Strong of Powerstock states at from 10 to 15 bushels, and sometimes as far as 20 bushels per acre. Mr. Claridge stated it at 12 bushels per acre, worth in 1793 from 3*s.* 6*d.* to 4*s.* per bushel.

Crops of hemp and flax are generally sold to jobbers, who sometimes sow the land, and take all the succeeding management on themselves.

The value of hemp or flax to the farmer, according to Mr. Pittfield of Symondsbury, varies from 10*l.* to 14*l.* per acre. Mr. Strong believes it varies from 8*l.* to 18*l.* but on the average is about 10*l.* per customary acre.

Breaking and Scaling.—The *strands* or stalks of hemp are broken off about six inches from the root end, and are then stripped by dexterously slipping the thumbs from one end to the other, by which means the *harle* or hemp, is separated from the *scales* or remnants of the stalks, in two operations. The women and children employed in the winter in this business will scale about 6 lb. of seed hemp, or 4 lb. of summer hemp, in a day. The summer
hemp

hemp is worth rather more than the other, and the price of scaling is about a penny a pound.

Bunching.—About eight heads, of 4lb. each, are twisted and turned back at the ends, and tied round with two strings. The bundle is then called a weight.

Balling Mills, or more properly, *bawling* mills, so called from the noise they make, are employed to separate the fibres of the hemp, which is laid in hollows, and is struck repeatedly by heavy pieces of timber (called *stampers*, rounded at the end, which are lifted by the mill-work,) and descend by their own weight; a boy being employed to turn the hemp over in the interval between each stroke.

Heckling or combing, is the next business, which makes it fit for the spinners.

The Produce.—Of hemp when scaled, according to Mr. Strong, varies from 384 lb. to 576 lb. per acre, and the price is from 6*d.* to 8*d.* a pound; it has been nearly a shilling.

Mr. Roberts of Burton Bradstock, believes an ordinary acre of hemp will produce 480 pounds, a middling one 640 pounds, and a very good one sometimes produces 800 pounds. Mr. Claridge states the produce at about 36 stone of 14lb.

The *scales*, or remnants of the hemp-stalks, are generally burned, and the crop consequently produces no other manure than the ashes thus obtained, except (as observed by Mr. Travers) the *sears*, or chaff of the hemp, which comes off in the thrashing process, which proves one of the strongest manures, throwing all the corn down on any spot where it is suffered to remain.

"The seed of the hemp (Mr. Claridge observes) is never manufactured here, but is sold into Somersetshire, or goes to the London markets."—"Five pecks (he adds), make a bushel of hemp, or a bushel and a quarter of nine gallons measure."

Land that is limed, is not believed to produce hemp of so soft a quality, as that which is manured with yard-dung.

A peculiar measure is here used for both hemp and flax; eight gallons neat make a bushel of flax, and five pecks make a bushel of hemp, or a bushel and quarter to nine gallons measure.

SECT. XXVI.—FLAX.

FROM 1782 to 1792 inclusive, the average amount of the bounty of 4*d.* per stone, paid to the flax growers was 457*l.* 3*s.* 2*d.* per annum, the annual quantity being 27,338 stone weight, and which is supposed to have been the produce of 1700 acres of land*.

Since

* Amount of bounty paid upon flax, from 1782 to 1792, inclusive.

Years.	Stones.	Amount.
		£. s. d.
1782	19,500 at 4 <i>d.</i>	325 0 0
1783	20,771	346 3 8
1784	44,458	740 19 4
1785	7943	132 7 8
1786	28,114	469 1 4
1787	43,506	725 2 0
1788	13,818	230 6 0
1789	28,827	647 2 4
1790	40,555	675 18 4
1791	5435	90 11 8
1792	38,769	646 3 0
	<u>301,726</u>	<u>£5028 15 4</u>

The bounty on flax and hemp was discontinued, it is said, because the
rent

Since that period, the growth of this crop has extended over all the western parts of the county, in some measure along the coast towards Weymouth, and rather generally in all that part of it bordering on the county of Somerset.

At this time, it is supposed that from 4 to 5000 acres are annually applied to the culture of this necessary article.

The Soils—Proper for the growth of flax are such as possess a considerable share of natural fertility, yet are inferior to those on which hemp is grown.

Land newly broken up from a state of pasturage is deemed to be better adapted than any other for the growth of flax; new land, or even such as has been under artificial grasses only for a few years, is obviously more fertile than similar soils which have been employed in the growth of corn crops without intermission, and is therefore better adapted to grow flax, on this account, as well as being less liable to produce weeds, which is a circumstance of very great importance.

Yet flax is often grown after wheat, or any other corn crops, and if the land is naturally rich, and in good condition, its culture will succeed in this way.

Manure—Unless perhaps a little sheep-fold in some cases, is seldom applied to land intended for flax. Though a considerable degree of fertility is necessary to ensure a profitable crop, yet an over luxuriance in the crop is not

rent of land on which they were grown, was increased in proportion to the rate of the bounty which the cultivation of these crops received, so that the bounty was no longer any encouragement or advantage to the farmer, but solely to the landlord.

desirable, as if it become laid by a continuance of wet weather, it is in great hazard of being rotted and entirely destroyed.

The Tillage—Of lay ground consists in one ploughing, followed by sufficient harrowings to obtain a shallow tilth, which need be no more than one or two inches deep: the land is rolled previous to sowing the seed, for the purpose of making it very firm at the bottom. Sometimes it lies in this state for a week before it is sown, care being taken to destroy all the grass which appears, and is finally rolled down after sowing.

Seed—Two bushels per customary acre is the common allowance, and the *strands* or stalks are wished to be not more than an inch apart, each way. Clover is frequently sown with it.

“ The best seed is annually imported from Riga, and sells for 12*s.* 6*d.* or 13*s.* per bushel; it is considered of very material consequence always to change the seed, as the same sort of seed will not grow with success, two years repeatedly in the same ground: as a proof of this, whilst the seed recently imported, produces the price before mentioned, the best seed grown here is not worth more than 8*s.* per bushel, and the inferior sort, which is unfit to sow, is not worth more than 3*s.* 9*d.* or 4*s.* per bushel.”—*Claridge*.

Mr. Groves of Abbotsbury, says the Riga seed is from 14*s.* to 20*s.* a bushel, and must be changed every two or three years, as that seed which is raised in England soon becomes full of weeds; and besides, it does not grow so well as that lately imported.

That a benefit is to be derived from crossing the breed of corn, as it were, by procuring seed from a distance,
is

is by some thought to be dubious, though something like a general persuasion of this kind is entertained by most farmers, and the alleged fact with respect to flax, seems a strong confirmation of this opinion.

Perhaps, at some future time, the experimental Physiologist will be able to ascertain, what kind of effects may be expected from an exchange of seed to different soils and climates.

The time of Sowing—Flax is about the middle or end of April.

It is said that flax will *blue* (blow or flower) in June, at whatever time in the spring it may be sown.

Weeding.—The expense of this process is extremely variable. When flax is sown on ground newly broken up, it sometimes does not cost a shilling an acre in weeding; at other times the expense of 40s. would not free it from weeds when sown after corn crops. Ten shillings an acre is believed to be about the average expense of this operation.

Instead of flax being, as some have said, a proper crop for cleaning of land, Major Travers observes, there is no crop in which weeds of all kind flourish more remarkably than in this. Flax is a slender plant, and perhaps the whole bulk of an ordinary crop does not weigh more than 30 hundred weight. It is therefore by no means surprising that weeds, as well as artificial grasses, should flourish better amongst such a light produce, than amongst heavy and laid crops of barley.

Pulling.—The crop is seldom pulled up before it is ripe in this county, unless it appears to be in danger of rotting from its large growth. The seed ripens, and the crop

is drawn up by the roots about the beginning of August. In 1810, several crops in the west of the county were pulled up by the 20th of July. If a crop of turnips is intended to follow the flax, it is of course carried into another field; but in other cases it is laid down in the field where it grows, the same as hemp, and having been turned once or twice, if the weather is fine it is ready for *pounding* or thrashing in about a fortnight.

The expense of pulling is about 12s. an acre.

Pounding—Is generally performed in the field, on some flat and hard ground proper for the purpose. The seed is easily beat out, and the instrument used for this purpose is called a *bidle*, and is merely a piece of a plank two or three inches thick, nine inches wide, and about a foot long, with a handle fixed on the middle of one of the flat sides sloping upwards, in such a manner as to make it convenient to strike the flax with the opposite flat surface of the tool. When the seed is not immediately thrashed, it is sometimes stacked in conical heaps or wind-mows in the field, and covered with thatch, being previously made into small sheaves.

The Produce of Seed—According to Mr. Claridge, is from eight to 12 bushels per acre: Mr. Groves of Abbotsbury, thinks about 10 bushels may be expected, but he is not much used to its culture.

Mr. Bridge of Winford, says the quantity of seed is generally from six to ten bushels per acre, and is worth 8s. a bushel for crushing to obtain the oil; but the best of it, which is used for seed, is 14s. or 15s. a bushel.

Oil.—Mr. Bridge says, the usual produce of a bushel of seed is a gallon and a half of linseed oil, and the oil-cake is worth 12l. or 14l. per ton.

Mr.

Mr. Claridge observes, that a bushel of flax-seed weighs about 48 pounds, and that two gallons of oil may be extracted from that quantity. The seed is sometimes used for feeding cattle, being previously boiled, or bruised and steeped in hot water, with malt grains, &c. Oil-cake is very nutritious, and the manure made by animals which feed on it, is of a very rich nature.

The seed is bruised under the edge of a large mill-stone previous to the oil being extracted from it, which is done by wrapping it in hair-cloths, and subjecting it to the pressure of heavy pieces of timber, which are raised by the mill-work, and descend by their own weight, and act against the seed horizontally, on the principle of the wedge.

The oil which is cold-drawn is the most valuable, but all of it cannot be effectually extracted, without repeatedly heating and pressing the bruised seed*.

Value to the Farmer.—The management of flax is not thoroughly understood by any, except professed flax-

* "The inferior seed, not good enough to be sown, is very valuable from its oily quality, which is extracted from it, by being first bruised in a mill, and then put into hair-cloths, and pressed by a heavy weight, when it produces the oil used by painters. Two gallons may be extracted from a bushel of seed, which weighs about forty-eight pounds. This operation is repeated by heating and pressing again, till all the oil is effectually extracted, and the hull or husk produces the oil-cake, which is much esteemed for feeding cattle. The oil cold-drawn is the first pressed from the seed without heat, and is the most valuable.

"There is a mill at Lyme for this operation, under the direction of Mr. Dawson, where a considerable trade is carried on.

"The flax seed is also used sometimes in this county for feeding cattle, by boiling it or first bruising, and steeping it in hot water, which makes a sort of saloop; and where malt grains can be had to mix with it, the food is of a very nourishing quality: this mode is practised by Mr. Bridge of Winford Eagle."—*Original Report.*

jobbers;

jobbers; and after the land is got ready, it is often let to these people at about 10 pounds or 10 guineas per acre, to sow and manage it at their own expense and discretion. At other times the farmers sow the land, and sell the crop to the flax-jobbers according to its goodness, as the time of pulling approaches.

Dew-ripening—Is a term applied to the exposure of flax for three or four weeks, on stubbles or meadow land, to the action of the dews and rains; by which means the flax is made to separate easily from the stalk. This is a process which cannot be thoroughly understood without the aid of practice. It requires turning several times, and seems to enrich the ground where it is laid, though this effect does not appear in the grass more than one season.

Neither hemp nor flax are here watered in pits or brooks, as in some other parts of England.

The Flax-dressers—Prepare it for breaking and swingling by drying it in the air, or by laying it on hurdles, &c., and making a fire under it; after this, it is crushed in *brakes*, which are wooden instruments containing a number of flutes or teeth which fit into each other.

In the flax-mills, the operation of breaking is done by tying the flax in small bundles, and passing them repeatedly between three fluted cylinders of wood, all of which work in a line, and the flax entering between two of them, is stopped by the wood-work on the opposite side, and returns between the middle cylinder and the other one which did not contribute to draw it in.

Swingling of Flax—Is an operation which is now in a great measure performed by mill-work. The swingling-mills

mills work in a horizontal position; the flax is held by hand against the edge of a board at openings in a frame not unlike that which surrounds the millstones in corn-mills, and is struck by the *scutchers*, or pieces of wood which project on all sides from a vertical shaft, that is made to revolve very swiftly. By this means the internal parts of the stalks are broken to pieces, and in a great measure separated from the flax.

The same effect is produced by manual labour, in a way nearly similar, for the flax-dressers hold a handful of the broken stalks over the edge of a board, and strike them lengthwise, with another board with a thin edge fixed to a handle.

The last operation is *heckling* or *combing*, which is done by drawing the flax repeatedly through a kind of comb, which consists of wires pointed upwards, and set at different distances. By this means the tow is separated from the more pure and valuable part.

In the spinning mills, the flax is passed round and over a number of cylinders covered with wire pointing outwards. The thread is made finer and finer, by the power of machinery applied to stretch and gradually lengthen without breaking it. It is wound on a great number of quills at the same time, which require only the attention of very young children to join the threads when they chance to break.

The Produce of Flax per acre—According to Mr. Clarridge, varies from 50 to 60 dozen pounds weight, fit for spinning, worth, in 1793, from 4*s.* 6*d.* to 7*s.* a dozen; but he says the crop is a precarious one, and much dependent upon the season.

Mr. Roberts of Burton, says there are bad crops which produce only about 15 weights per acre, or 480 pounds;
but

but a middling or saving crop is about 30 weights: a good crop produces about 40 weights, and some extraordinary crops have reached as high as 70 weights per customary acre.

The Price of Flax and Hemp in 1808—(As communicated to Mr. Parkinson in a letter from Mr. Hounsell of Bridport), was as follows: Dorsetshire hemp 18s. to 19s. per weight of 32 pounds; watered flax 11s. 6d. to 12s. 6d. per dozen pounds; Dew-ripe flax 9s. 6d. to 10s. 6d. per dozen.

Exhaustion of the Soil.—Flax is generally believed to exhaust the soil more than hemp, but there do not appear any good grounds for this opinion. The truth is, indeed, that a good crop of corn more often succeeds hemp than flax, but the cause of this is sufficiently obvious. Mr. Bridge, and several other farmers, think that flax cannot exhaust the ground much, as it is a light crop, and of very quick growth. In all probability the growth of the crop does not exhaust the ground so much as a crop of any kind of white corn; but the trivial return of manure which it makes, appears to be the great objection to a general culture of it on poor soils; for on rich soils there can be no reasonable cause to forbid the growth of any crop. Flax is often grown after any kind of corn that was a good crop, but it is said it should never follow a bad one, as it will not succeed in such cases.

Making some allowances for good and bad culture, it appears that a good crop of corn is very generally a *sign* that the land is in a fertile condition, but cannot be a *cause* of future fertility, so far as respects the succeeding crop; which, though it may be a productive one, would have been still more so if it had been grown a year earlier.

The

The greater part of the preceding observations on the culture of hemp and flax, were communicated by Mr. Axe, a small farmer at Loders, who is well acquainted with the subject. The other remarks, which are mostly acknowledged, are by Major Travers of Loders, Mr. Strong of Powerstock, Mr. Roberts, flax-manufacturer at Burton, Mr. Bridge of Winford, Mr. Groves of Abbotsbury, Mr. Conway of Netherbury, and Mr. Pittfield of Symondsbury.

CHAP. VIII.

GRASS LAND.

THE quantity of grass land in this county is very considerable, especially in the Vale of Blackmoor, which contains very little arable land ; not more, as it is supposed, than one-tenth of the whole.

Perhaps about two-thirds of the chalky district consist of meadows, cow and sheep pastures, and downs.

The whole quantity of pasture, meadow, common, and down land, is supposed to be 300,000 acres, or about three-fifths of the county.

SECT. I.—MEADOWS.

ABOUT 6000 acres of the meadow land in the chalky and sandy districts are regularly irrigated ; and such as are not subjected to this process, are either mown or fed with sheep or dairy cows. In the Vale of Blackmoor, the meadow land, on the banks of the river Stour, and the other rivulets which fall into that stream, is in general very rich, and is applied, in a great measure, to the production of hay for the wintering of dairy cows or fat beasts.

The upland or dry meadows are better managed than is the case in many other counties ; in many parishes they are manured with lime compost ; in others, lime alone is used, and in a few years after liming, dung is put
on,

on, or dung compost, which must contribute much to fertilize the soil, and sweeten the grasses. They are in general pretty well drained, and on the average, under better management than most counties that I have seen, where the practice of selling hay is not in use.

The meadows of the Vale of Blackmoor support many sheep in the winter, particularly those which are called *bogs*. They are taken by the Vale farmers at 8s. or 9s. a-head, from Michaelmas to Lady-day, when they return to the upland part of the county from whence they came. The Vale lands are sometimes stocked very hard in this way during the winter, as some of the down-breeders complain, that the young sheep thus wintered often return in a poor lean state.

Mr. Bridge of Winford, who keeps from 900 to 1000 breeding ewes, puts 600 of them out to pasture during the winter months, and almost every breeder on the downs is accustomed to do the same. Although by this mode of proceeding the meadows may not cut so great a burden, or come so early to the scythe, yet the grasses will be finer, and more free from noxious plants, as sheep are by nature clean feeders and destroyers of noxious weeds.

The hay is, in a general way, applied to cows and sheep; there is some little given to store stock, but not many cattle or horses are kept on meadow-hay in this county.

The produce of the highest meadows is about half a ton of hay per acre; those of the better kind produce three quarters of a ton; those by the side of streams produce, without watering, from three quarters of a ton to one ton and a quarter per acre: water-meadows are said to produce from one ton to one ton and a half, and in a few instances as far as two tons of hay per acre.

The expense of mowing is 2*s.* 6*d.*, making 4*s.* 6*d.*, stacking 1*s.* 6*d.* per acre, in good dry seasons; but the expense of making is much more in wet summers.

In the vicinity of Sturminster, about one-third of the pasture is annually mown. The stock is taken out of that part which the Stour overflows at Candlemas, and out of the other at New Lady-day.

Hay-making—Is a branch of business not conducted in a very regular way. The mode of hay-making generally practised, consists in spreading it well over the ground, as soon as mown, and turning it after it has become a little dried, or raking it again into small rows. Sometimes it is spread abroad again.

At night the hay is left in small cocks, or rows. The water-grass being more plentiful, requires of course more breaking and spreading than upland hay; but the management is various, and much of it is performed by women.

Mr. Groves of Bettiscombe, is of opinion that hay should be cocked every night, to make it hold its colour; but this precaution is often neglected, on account of want of hands.

At Sturminster, the expense of mowing the grass and making the hay is about 7*s.* per acre, and the expense of carriage, &c. about 2*s.* more.

At Abbotsbury, grass is cut for 2*s.* an acre, and a gallon of beer or cyder, with the additional allowance of four bushels of malt and two pounds of hops for every 50 acres of grass, which the men brew themselves for the use of their families.

In carrying hay, it is customary here to allow a pint of cyder each to all the men employed about the waggon and the rick, for every three loads that are brought home. Women have half a pint when the men have a
pint;

pint ; but the hay-makers who work fewer hours, are not included in this custom.

If the ricks appear to heat too much, Mr. Groves cuts a square hole down the middle, and afterwards, if necessary, he sets up four poles over the hole, and ties them together at the top, which he covers with a little reed-thatch, when the stack is finished up to the top of the poles. Some people, he observes, cut a hole in the side of the rick to the *leeward* ; in which case, if the wind turns so as to blow directly into the hole, the rick will be suddenly set on fire.

Mr. Bridge of Winford, thinks the whole expense of hay-making amounts to 15*s.* an acre on the average. It is cocked every evening in wet weather, but is often left in rows. Green hay is liked best for sheep, and brown for grazing stock.

The Rent—Of dry meadows appears to vary from 20*s.* to 30*s.* an acre, in the upland parts of the county ; but the meadows of the *Stout*, in the Vale of Blackmoor, are worth from 2*l.* to 4*l.* per acre. In Purbeck, according to the Rev. Mr. Dampier, the rent of meadows varies from 20*s.* to 40*s.* per acre.

Half-year Meadows—Or those in which one person has the hay, and another person claims a right to the *after-shear*, are to be met with at Abbotsbury, Swyre, &c.

It is not remarkable that such customs should exist in or near open fields, where all the farmers have a right of common ; but the meadows abovementioned are not near common fields, and no more than two or three persons are concerned in these mixed rights, which are apparently considerable checks to every kind of improvement.

Mr. Park, agent to the Earl of Shaftesbury at St.

Giles's, states, that the tenants are permitted to carry hay, &c. to Poole, on condition of purchasing a suitable quantity of manure in return.

SECT. II.—PASTURES.

THE rich feeding land of this county extends through all the lowest parts of the Vale of Blackmoor, and detached spots of fertile pastures may be seen in other parts of the clay and stone-brash districts; but the upland chalky part of the county contains very little pasture-land that is ever applied to the purpose of fattening sheep or cattle.

Many wether sheep and beasts are fattened in the Vale, perhaps one-third of that fertile part of the county is applied to this purpose. Mr. Cox of Fifehead Magdalen, has some pasture-land, which is much improved by draining, liming, &c. and is capable of fattening the largest kind of Devonshire oxen, stocked at the rate of one per acre, and there is much land on the banks of the Stour of equal fertility.

The summer keep of fatting beasts is believed to be worth from 3*s.* 6*d.* to 4*s.* a week.

The produce in Meat per Acre—It is impossible to ascertain; but if it be considered that the value of the produce ought to be double as much as the rent, in this case, if beef or mutton be 7*d.* a pound, the grazier should obtain about 130lb. per acre, from land at 40*s.*, and so in proportion for land of a higher or lower quality.

Dairy-

Dairy-Grounds—Are common in every part of the county.

The low pastures of the chalky district, as well as those of a similar description in Purbeck, and along the coast to the borders of Devonshire, are not, in general, adapted to the purpose of the grazier, and are therefore applied to the support of dairy-cows, which furnish the Portsmouth and London markets with potted, or firkin butter.

The dairy-grounds are termed *cow-leazes*, and the better kinds of them are stocked at the rate of one cow for two acres in summer; but there is much land of this description, of an inferior quality, where it is necessary to allow from four acres to four acres and a half for the support of a cow through the whole year. The rent is from 15s. to 80s. per acre, and the produce is ascertained by the sum for which cows are let by the year to dairy-men, which is from 10l. to 12l. per annum.

The abundant produce of the water-meadows, together with the custom of keeping the cows almost entirely on straw, during a considerable part of the winter, render it unnecessary to mow any very large portion of up-land pasture.

On the best pasture-land, or *cow-leaze*, the present customary stock is milch-cows alone; and although they are very profitable, if a small number of sheep, about one to a cow, were kept with them, it would be an advantage to the cows, and afford a profit of considerable extent through the county. Sheep should be put in early in the spring, when they will eat many weeds as they first spring up, which they would not touch afterwards. An instance of this occurred at Mr. Ballson's at Athelhampton: in one cow-leaze where there had been no sheep, there were many rag-weeds and hard-

heads, or knap-weeds. The first grows with a strong stem two or three feet long, and bears a yellow flower; the other bears a red flower, with a stem at that season as hard as the first; and Mr. Ballson confessed there were none of these weeds in another cow-leaze where sheep had been mixed with the cows.

Sheep Pastures.—The open downs, and the most elevated and thin stapled parts of the enclosures, are entirely devoted to the support of sheep in the summer season. The grass on these bleak and exposed situations does not grow perceptibly till late in the spring, and not at all in the winter; it is mostly consumed by young sheep and breeding ewes, which are constantly folded on the arable land, or the better kind of pastures.

The downs vary much in fertility; some of them are stocked at the rate of two sheep per acre, four or five months in the year, and others as low as half a sheep per acre.

It is an invariable custom to keep the grass on the downs as short as possible; in this state it is deemed the most nutritious to the sheep, and in fact, must be consumed in its most tender and succulent state, or not at all, as it is refused by the animals at a later period of its growth, when it becomes hard like wire.

There is a superior kind of sheep-pasture, which is called *ewe-leaze*, which is next in point of fertility to the cow-pastures, and the rent of this kind of land seems to vary from 10*s.* to 20*s.* an acre. These are devoted, as their name imports, to the breeding ewes which are intended for sale at the ensuing Michaelmas, or a reserve is made of the grass for the younger sheep which drop their lambs at home about Christmas.

A farmer at Canford, according to the information of
Mr.

Mr. Park of St. Giles's, keeps no sheep at all, but mows all his clovers and mixed seeds, and gives the hay to sheep in the winter, which are taken in at the rate of 8*s.* or 9*s.* per head for tegs. Mr. Park thinks the land is more improved by this means, than it would by summer feeding with sheep; but he says the upland farmers must have sheep, or they will get no corn.

By this it is implied, that it is necessary to impoverish the downs to support the arable land; an opinion which seems to be entertained by all the upland farmers in this county.

Laying Land to Grass.—There is very little necessity for making any addition to the permanent pasture-land in this county, which already contains 300,000 acres of that description, and only about half that quantity of arable, for the supply of bread-corn to a population of upwards of 116,000 persons. Some people have supposed every person to consume, on the average, eight bushels of wheat per annum.

The consumption of Dorset, according to this calculation, will be	} 116,000	<i>Quarters.</i>
The produce of one-fifth of the arable, at 18 bushels per acre, is .....			} 69,114
Which leaves a deficiency of	46,886	

Those who think it proper to lay heavy taxes, or indeed any tax upon husbandry-horses, are not, perhaps, aware, that the deficiency of bread-corn in Dorset alone can only be supplied by the produce of upwards of 60,000 acres of such land as will return 24 bushels of wheat per acre, besides the seed, when managed in the four-shift system. The quantity of arable in this county, is, however, in all probability, rather on the increase, as there

are few instances in which arable land has been lately turned to pasture, and there are several in which parts of the downs, &c. have been broken up by paring and burning, which would not have been the case if they were intended to be relaid to grass.

It seems rather a general opinion among the principal farmers, that the poorer parts of the ewe-leazes, which bear little beside moss, &c. ought to be broken up, and new laid with grass-seeds, after taking a crop of tares, turnips, and barley. Such is the opinion of Mr. Banger of Waterson, Mr. Willis of Corfe Castle, &c. Complaints are made, that the Proprietors mostly refuse permission to effect this improvement, which, it is said, generally doubles the value of the pasture. The Proprietors might probably obtain some addition of rent by indulging the tenants in this respect.

Mr. Bridge of Winford, had a piece of poor mossy sward, where his lambs were always subject to the red-water. He caused it to be well chalked previous to its being broken up, when he sowed it with tares, wheat, turnips, barley, broad-clover, wheat, turnips, barley, and seeds, in succession. The seeds, with which it was finally relaid, were one bushel of Devonshire rye-grass, six pounds of marl-grass, six pounds of white clover, and six pounds of trefoil. It kept great quantities of stock for many years, and still remains a good pasture. I could not discover what are the kinds of grass which this pasture produces at present, except that it contained some of the *holcus lanatus*, or Yorkshire grass. The field has been laid down eighteen years; and Mr. Bridge has another pasture that was managed in the same way, and with the same success.

Mr. Goodenough of Frampton, has much improved some rough, furzy downs, by relaying them with fresh seeds

seeds after a few crops; and the same system has been successfully pursued by Mr. Clapcot of Whitechurch. This Gentleman took one course of crops, and then sowed the Devonshire rye-grass, with other small seeds, and he believes the produce of the field is now five times as much as it was in its original state. Very little rye-grass can be discovered in the field at this time, but there are many bunches of Yorkshire grass, though none was sown.

Much has been said on the propriety of laying down land to permanent pasture, by sowing the seeds of natural grasses; and no trivial objections have been made against the use of the rye-grass with this intention; but if the testimony of the farmers in this county is of any weight, the Devonshire rye-grass ought to be preferred even before those which are called natural grasses.

This kind of grass produces much blade, in comparison with that of the common kind; it soon becomes green again after the scythe; and though it will finally give way to the natural produce of the soil, the value of the pasture does not seem to be increased by that circumstance, as is the case when common rye-grass is used. These appear to be important circumstances, and it is scarcely less so, that the seeds of the Devonshire rye can be procured at about 8s. or 10s. a bushel, when the same quantity of natural grass seeds is not to be obtained under double that price.

Mr. Clapcot does not think the ancient and thin stabled downs could be improved by relaying, as they have too little soil to admit the use of the plough.

Ant-hills—Are sometimes destroyed by cutting out the insides, and relaying the turf, as in other districts; but Mr. Groves of Abbotsbury, does not like the turf of which

which they are composed; he prefers to cut them off with a paring-shovel, and make them into a compost with lime and manure.

Mr. Bryant of Swyre, manages the *emmet-hills* nearly in the same way. The places from which the hills are taken should be pecked up with mattocks, and seeded with white clover and Devonshire rye-grass, laying a little manure, or lime and earth, on the top. In this method of management, the places which have been pared are scarcely to be discovered two years afterwards.

Sowing Old Pastures with White Clover—In the autumn, either with or without the addition of lime compost, is a novel mode of improving them, which is much recommended by Mr. Roberts of Burton Bradstock, as well as by Admiral Ingram of that place. The clover grows so much amongst the crop, especially when some earth is also spread over it, as to improve the herbage very considerably. Sometimes the white clover spreads over the sward in bunches, from the distribution of its seeds when any of them happen to ripen on the land.

Mr. Bryant of Swyre, has tried the experiment on Berwick Farm, and in his opinion it proves of manifest utility.

CHAP. IX.

GARDENS AND ORCHARDS.

SECT. I.—GARDENS.

NO very interesting information has been obtained on the subject of gardens; the following is the substance of it: The gardens are small, with very few exceptions: those belonging to the farmers seldom contain more than from half a rood to a rood of ground, and the cottage gardens are much less; some of them are small enclosures taken from the sides of the highways, which is a very good practice, but they soon convert them into orchards, and the apples frequently hang over the roads, and may be easily gathered by any passing traveller. “ But they are so common, that they seem not to be stolen by children and others, as they would be in places where they are more rare. The gardens belonging to E. D. Grosvenor, Esq. at Charborough contain about two acres, and this seems to be about the quantity of ground appropriated to this purpose by the principal nobility, and gentlemen of the county. Those in the hands of professed gardeners are of various sizes: at Bridport there are some of three roods each; at Shaftesbury some of an acre each, or upwards; at Stimsford from four to ten acres; at Upway one of four acres; and at Winterborne Came, some good gardens of about an acre each.

Mercury Goosefoot (Chenopodium bonus Henricus).—As this plant has been highly extolled, Mr. Bachelor made
many

many inquiries respecting it, and found it almost generally unknown. Mr. Bridge of Winford Eagle, has, however, a small patch of it in his garden; he obtained the plants from Abbotsbury, at which place, and probably many others, it grows naturally.

Mr. Bridge states that its produce is very considerable; that it is fit to cut early in the spring, and tastes something like spinach, but is not on the whole much esteemed. Yet, as this plant is much used in the county of Lincoln, both by rich and poor, the substance of Mr. Parkinson's observations, on its culture and use, are here inserted, in order that further inquiries may be made respecting it.

"Mercury grows naturally in Dorsetshire as well as in many parts of England and Ireland; and one of our King Henrys (according to the observation of Dr. De Salis) liked it so much, that he gave it the name of *good Henry*.

"It grows something like dockins, and the part that bears seed is very much like them; it is never found but on rich land, frequently amongst nettles, where ancient buildings are, or have been, as in churchyards, or by the sides of walls, in the streets of villages.

"It is esteemed, by those who have long had it in use, as superior to most other greens, not only as to taste, but as an early spring vegetable, and a purifier of the blood.

"Its taste is a very pleasant bitter, much like spinach, but not so faint and earthy; those who know it, and use it, prefer it much to spinach."

"About a square yard, properly managed, would be sufficient for one person six days in seven. It is ready to cut about the same time as asparagus, and should be taken up in the same manner, a small distance within the ground, one by one, as if it be cut above the ground, it will injure its future progress; and nearly prevent its
growing

growing, if it is cut off in bunches or handfuls like spinach.

“ It is remarkably quick in its growth, and ought to be cut when about half seeded, or it will soon get too old, and then the roots will not make the second shoot so well after such neglect, but they will be small, weak, and stringy. It is a common saying with those that grow this plant, that the more they cut it the more they have. Indeed it may be continued cutting all the summer, but it is generally neglected when the cabbages, pease, and beans become plentiful.

“ This plant bears leaves nearly down to the bottom, and in preparing it for use, the lowest leaves must be pulled off, and the stalks scraped in the same manner as asparagus, and then tied up in bunches, and boiled till the bottom part is soft. The leaves are nearly as good as the other part, but there is a sort of a string that pulls off with them from the stalk, which is tough and stringy. The leaves must be tied up in bunches the same as the stalks, but the lower ends should be cut off: the whole plant is excellent to eat with any kind of meat.

“ Mercury requires very rich land or much manure; the beds on which it is planted should be only five feet wide, that it may be cut without treading amongst it. In making the beds, the mould should be thrown out about a spit deep, and some good short horse-dung in its raw state put at the bottom, three or four inches thick, and then covered with the mould, which should be made as fine as possible.

“ The plant may be raised either from seed or from roots: but the latter are best, if they can be procured.

“ The seed may be sown on the bed, and it will not require transplanting; but should be thinned so as to remain in rows 14 or 18 inches asunder, and from nine to twelve inches apart in the rows.

“ The

“ The proper season for sowing the seed, is at the beginning of March ; but the roots should be planted in November, or December, in which latter case they should be covered with some long horse-dung, thick enough to prevent the effects of the frost, which might injure, though it is not likely to kill the roots.

“ It should not be cut the first summer, as it weakens the roots ; but if the land be rich and well manured there may be a fair cutting in the second year, and in the third it will be in high perfection, even from the seeds, but the roots will most probably produce the most, and earliest.

“ In November the plants are generally grown up 18 inches or two feet high, with much seed upon them : the crop should then be mown with a scythe close to the ground ; and the refuse stuff clean raked off and carried away.

“ The intervals between the rows, should be dug with a three tined fork, two or three inches deep, and the soil all turned over, taking care not to injure the roots, and picking out all the couch and other rubbish, finally covering the whole over with horse-dung. In the spring, as soon as there is the appearance of fine weather, rake off the dung and dig the bed as before directed, putting the dung underneath the mould. Turnip radishes may be sown in the intervals, as they will be off before the two kinds of plants will injure each other. The crop never needs renewing, but on the contrary, with good management becomes stronger and earlier.”

In Mr. Parkinson's calculations of the expenses attending the culture of mercury, no less than 70 loads of manure per acre, are used in the first year ; and 30 in each successive one ; and the profit of a full crop, or rather the supposed value of it if sold in the London markets, is
stated

stated at almost 3*d.* a yard square, for six weeks successively.

In the correspondence to which Mr. Parkinson's high opinion of the merits of this plant gave rise, Sir Joseph Banks remarks, that, though "it is cultivated in the gardens of the yeomen of Lincolnshire, and elsewhere, it is not true that it is an excellent herb for the kitchen, for it is scarcely ever seen in a gentleman's garden."

But Mr. Brynn, in his replies to some queries addressed to him on this subject by Sir John Sinclair, seems to entertain a very good opinion of it, having cultivated it seven years.

The following extracts from Mr. Brynn's letter, contain all the material observations.

"The roots, planted in rows 15 inches apart, and one foot from plant to plant, will be in perfection in four or five years, but may be cut from the second year. If raised from the seed, it will be seven years before it arrives at its full growth.

"If the season is mild it may be cut at the latter end of April, or early in May.

"I think the produce of ten square yards (which is exactly the quantity I have) is sufficient to supply six people, for three days in the week, the whole time it is in season.

"Many people prefer mercury, to either spinach, asparagus, or sea-kail; it is certainly preferable to spinach, in my opinion, as it is more firm when dressed, and free from water.

"It would be very useful for cottagers, as the room it requires is so inconsiderable for so large a production. The attention it requires is very trifling, and it never fails, be the season ever so unfavourable.

"It certainly would cause a variety on a gentleman's table,

table, and if dressed with spinnage, would give firmness to that vegetable. I have heard that it is much used in that way in the North of England.

"It would advantageously fill up the interval between the old and new crop of potatoes; but if substituted as an article of sustenance in lieu of potatoes, I think it would not be useful; its nutritious qualities not appearing to me to be equal to those yielded from potatoes."

The opinion that a species of mercury is poisonous, or unwholesome, relates to a different kind of plant, viz. the Dog's Mercury (*mercurialis perennis*), while the plant in question belongs to the Chenopodium, or goose-foot tribe, of which there are several species.

From the testimonies that have been brought forward, it would appear that mercury is a useful garden vegetable, but its principal merit seems to consist in its early maturity, and it probably might meet with a ready sale in the spring, as turnip-tops are bought at that time with avidity, which are much inferior to this plant.

Sea-kail, or *Beach-kail*—Which is a rough hard plant, as it grows wild on the cliffs near Burton and elsewhere, has been introduced about eight or ten years into garden culture in this county, and is now become very common in the gardens of the principal farmers, and is much esteemed, it being a winter vegetable, sometimes in use as early as Christmas, but generally more early than asparagus.

In cultivating this plant (from the information of Mr. Bridge and others), the ground should be dug deep, and well mixed with manure, before the seeds are sown, and the plants should be nearly two feet apart each way. The tops must be cut off in the autumn, and the whole
covered

covered four or five inches deep with long horse-litter. The heads must be cut rather within the ground, when about four or five inches long, and before they come through the dung, which will happen sooner or later according to the warmth of the season, or the quantity of manure supplied, and mixed with the soil in the spring, &c. Some people cover the heads with pans, &c. covering all over with dung; by which means, it would seem, they are brought forward earlier, and bleached more completely, than in the other method.

SECT. II.—ORCHARDS.

It is supposed that there are upwards of 10,000 acres of orchard ground in this county.

Mr. Ottan of Wootton Fitzpaine, has an orchard of 20 acres, the trees about 20 feet apart. The produce is thought to be about 10 hogsheads of cyder per acre, but is a matter of great uncertainty. When cyder ferments too much, Mr. Ottan observes that it should be checked as much as possible; and this may be done by straining the sediment, which is left after racking off, through a canvas bag, and putting the clear liquor thus obtained among the cyder. The apples which are called sour-bitters and cluster-apples, are useful to make cyder keep well, and one pound of hops to each hogshead is often used with the same intention.

At Dallwood, cyder of the best kind is made from bitter apples, such as the Jersey, Buckland, Marybone, and Langstone kinds, which are heaped together till they sweat, before they are broken. It is always racked off from the sediment, if it ferments much, and the sweet

DORSET.]

x

kind

and of cyder is raised in many places. A strong frost is not needed for the best soil for it to flourish.

In the neighbourhood of Bournemouth, it is common to see the bushes of apple trees with much of the branches bare, in making cyder; and in some places a few trees are now raised for the purpose of making cyder.

In Bournemouth, and some other places, it is common to see the best cyder is made, by filling the casks with the juice of apples as it is pressed out, and putting them down, and depending on the strength of the casks to keep the fermentation. It seems to be pretty generally acknowledged, that 20 bushels of apples will make a bushel of cyder; and Mr. Spring of Portsmouth observes, that an apple-tree in that neighbourhood has been known to produce seven bushels in a season.

Mr. Groves of Bournemouth, has a nursery of apple-trees, and sells a great many at 3s. 6d. each. They are grafted on crab-stocks nine or ten inches from the ground, and clay wrapped round them in the usual way. The top leader or middle branch is cut off for the purpose of making the other branches spread, and some of the side-shoots permitted to grow within six feet of the ground.

Young apple-trees should be pruned; but Mr. Groves observes, that old trees frequently bear no more fruit after that operation, especially if any large boughs are taken out.

Mr. Groves of Abbotsbury, thinks it improper to support apple-trees with props, after they have become firmly rooted, and has convincing proofs that they thrive the best when the roots are moderately shaken and loosened by the wind.

Mr. Groves has a new orchard of about three acres, in which the trees are planted in rows about eight yards apart,

apart, but stand in a triangular form with respect to each other. The greatest part of the ground between the rows is cultivated, and has been sown with wheat, clover, potatoes, and flax; but potatoes are esteemed the most proper crop.

The soil has been dunged, limed, and folded, and was cultivated principally with the view to throw it up into ridges, and thus deepen the vegetable mould about the roots, and carry off superfluous moisture, which is injurious to fruit-trees. This orchard has been planted 12 years, but Mr. Groves believes it would have flourished much more if the ridges had been formed before the trees were planted. The trees are sometimes dressed with a mixture of lime and soot, to prevent their being injured by hares; and the moist or dewy appearance of this composition is considered as a sure prognostic of approaching rain. A cold wet soil is considered to be very improper for an orchard. Mr. Banger of Waterson, has irrigated a piece of land, where there are a few apple-trees, and there is great reason to believe the water will destroy them.

Orchards are sometimes planted after the rate of 48 trees to the acre, or 10 yards apart, but a more frequent distance is seven or eight yards, and sometimes no more than five. The trees are often entirely covered with moss; and it does not appear that the easy, safe, and effectual remedy, of white-washing the moss with lime and water, is ever made use of.

Mr. Roberts of Burton Bradstock, has planted a small orchard on what he considers to be a very improved plan. Large holes, I believe as much as three feet deep, were dug, and half filled with furze and rubbish, previous to the good mould being put in which surrounds the roots of the apple-trees.

The trees planted in this manner appear to have grown very rapidly, as is also the case with the quick hedge which surrounds this garden and orchard, the subsoil of which was also mixed with furze and rubbish, previous to the planting of the quicksets.

CHAP. X.

WOODS AND PLANTATIONS.

TIMBER is scarce in this county, and the quantity is continually diminishing. The Vale of Blackmoor is said to have been very woody in former times, but at present the greater part of it grows no other timber than what is interspersed in the hedge-rows ; which is, however, a considerable quantity of elm, ash, &c.

There are few parishes that have woods which contain timber exclusive of parks, where they are mostly preserved for ornament, and consequently are of little use to the public.

There are, it is believed, only 17 parishes in the county, that have timber woods, and many of them are thinly stored. They are as follow :

Abbotsbury, 50 acres of oak timber.

Charborough, 10 acres in the park.

Fifehead Neville, 60 acres.

Hawkchurch, 50 acres, trees worth 5*l.* each.

Chilton, 100 acres.

Hilton, 70 acres ; a little timber.

Sydling St. Nicholas, 100 acres ; much timber.

Symondsbury, 20 acres ; some young thriving timber.

Stallbridge, 90 acres ; a small quantity of timber.

Stoke Gayland, 60 acres ; mostly timber.

Stourton Caundle, 65 acres ; a little timber.

Sturminster Newton, 100 acres, but very little timber,

Tarrant Gunville, 250 acres ; ash and oak timber.

Tarrant Monkton, 50 acres ; a little timber,

West Charborough, 40 acres ; some young timber.

Winterborne Clenston, 320 acres ; 40 of which some fine ash.

Winterborne Whitechurch, 44 acres, and about five timber trees in the wood.

This enumeration does not amount to 1500 acres, but there are several other woods in the county which contain some portion of timber, beside a number of copses, consisting almost entirely of hazel on the chalky soils. The Vale of Blackmoor contains some woods, particularly in the western part of it, towards Hermitage, Leigh, &c. A small portion consists of oak only, without underwood, and planted in regular rows.

Copse-wood.—Mr. Best of Dewlish, says the copses are cut at about six or seven years old, for the purpose of making hurdles, without splitting the hazel.

When hurdles are made of older wood, the largest branches are split. Ash in copses often stands 20 years or more for poles, hoops, &c. Cope-woods are seldom or ever let by themselves to the tenants of the farms in which they are situated. The following opinions on the value of wood in this county have been collected.

Mr. Banger of Waterson.—“ Woods cut at 12 or 14 years' growth seldom produce more than 1*l.* per acre per annum, and often less.”

Mr. Alner of Piddletown.—“ Lord Orford's woods, cut at six years old for hurdles, and from 10 to 14 for hedging, produce from 8*l.* to 13*l.* an acre, clear, beside expenses, at 10 or 12 years' growth.”

Mr. Bridge of Winford Eagle.—“ Cope woods, consisting of ash, willow, alder, and hazel, are cut at seven or eight years' age for hurdles, or at 14 years for dead hedges

hedges, poles for railing, &c., and produce on the average 20s. an acre."

Thus it appears, that a tenant should not give more than 10s. per acre for copse-woods, to obtain a fair profit by occupying them.

The general price of cutting is 2d. a pole of grubbing up woods, at from 6l. to 10l. per acre.

Plantations.—On such small plots of wet land, by the sides of hills, where it was not easy to make the land perfectly dry, several gentlemen have made *withy-beds*, or plantations of willows and oziers, which are used for making baskets, hurdles, &c.

Open drains are often made between the beds, and the poor frequently plant potatoes among the sets for some years, thus keeping the ground clean, and (as it is supposed) affording more nourishment to the plantation by the extra culture, than is withdrawn by the growth of the potatoes. Mr. Cox of Fifehead Magdalen, has several acres of *withy-beds*, which he can water, and lay dry at pleasure, by which means their growth is much accelerated.

Plantations of fir, of various kinds, intermixed in some cases with other trees, have been made by many of the principal proprietors; which have not only contributed in a great degree to adorn the neighbourhood of their country-seats, but have also added materially to the value of those barren heaths, which will not admit of any other mode of improvement.

As the subject of Plantations is a very interesting one to the owners of the extensive heaths of Dorsetshire, the following information, collected on this subject, is here subjoined.

Mr. Harland, farming bailiff to William Churchill, Esq.

says their method is to plant Scotch fir seedlings, of two years old, four feet and a half asunder, to remain one year; and the next year to remove them finally to the plantation. The method they have found to answer best is, to grub up the mould with a pick-axe, about three feet wide, and 16 or 18 inches deep, and take a spade and make an opening in the loosened mould, putting in the root of the plant in the same manner as potatoes are dibbled, and leaving the heath as perfect as possible. The higher the heath the better, as it shades the young tree in its early stage. They have intermixed other trees amongst the Scotch firs, but they did not answer on the tops of the hills. In the valleys, some birch and larch prospered tolerably well, but ash and oak did not do at all. But on some parts where the Scotch firs have been cut down, after having been planted about 50 years, they have planted beech, larch, and Spanish-chesnut, and they do very well; and in some parts there is here and there an oak in the plantations, that grows very well. They are supposed to proceed from acorns dropped by the rooks, and from that circumstance the bailiff supposes if acorns were dibbled in, they would grow, now the Scotch firs have got up to shade them from the sun and wind. Mr. Churchill's plantations, which are chiefly Scotch fir, grow very well, together with those oaks which were planted by the rooks; but the young oaks that were planted at the same time with the first, all died.

During the 50 years the Scotch firs have been planted, the shade has destroyed all the heath, and enriched the mould so much, that the bailiff is of opinion, the ground might be advantageously cultivated, as the colour of the soil is entirely changed. It is a general opinion, that the leaf of the Scotch fir is of no benefit to the land as a manure; but be that as it may, the shade during such
a long

a long time has improved the soil; of which a strong proof is afforded by its growing such trees at present, and in a prosperous manner, that would not grow at all in its original state. But there is another reason why the beech, chesnut, and oaks flourish in their present situation, as they are surrounded by other plantations of Scotch firs, which shelter them from the wind, and in some measure from the winter's cold and summer's heat.

Mr. Harland thinks that enclosing those heaths into fields of 10 or 15 acres, with a plantation around them about 20 feet wide, would be a very great improvement, as the fences on both sides would be a preservative to the young trees, as it is shade they want; and he is of opinion, that in plantations taken in in that manner, beech, larch, Spanish chesnut, and oaks, would grow at the first planting in those narrow belts.

Mr. Harland, in 1807, had a piece of turnips that grew very well, on some land that was heath a very few years before; and they had had no particular advantage more than the other turnip crops. This piece of turnips was sheltered by many plantations: they were in drills in the Scotch method, and as it was a dry summer, their being planted on ridges was a circumstance rather against them.

Mr. Chambers, a nursery-man, who has planted many acres for the Marquis of Lansdown, is of opinion, that for profit, no other trees should be planted at first, but the Scotch fir. They should be all seedlings, and the ground neither dug nor raised, but a hole made in the ground among the heath (the higher the heath the better); put the plant in the place made by the spade, and tread up the space on each side of the plant. He says they cannot have too much shade about them: if the heath were so high that the plant could not be seen for

two years it would not be the worse, as they are spreading their roots in the ground all the while; the destruction of many trees being caused by the wind shaking them before their roots have properly got hold of the ground. The sun is also equally injurious; to prove which, he says he has planted many round hills, and finds the north side of the hill succeed the best. Mr. Chambers says the Scotch fir is never planted thick enough; they ought to be so near together as to make the side branches drop off, when they are very small; as if they stand at a distance from each other, and the side branches remain on for some time, they leave a knot in the tree, and spoil the timber.

He would never have them weeded, but let them weed themselves. The plants are best raised on poor sandy, or gravelly soils: the Scotch firs will scarcely grow on good land, and the reason they do not prosper at times, is letting them stand to be older than seedlings, which is two years from the time the seed is sown: the third year is dangerous. After the fir trees have been planted three or four years, he would dibble in acorns amongst them, and beech mast, and they would frequently thrive.

As to planting oak plants, Mr. Chambers thinks that improper at any time, as an oak cannot be planted in the way nature has directed: it has a tap-root, which by no means ought to be stopped, as it spoils the tree.

Scotch firs ought also to be planted when young, as at that time the principal roots are like those of a carrot, and the side branches are so small as to meet with no obstruction in the operation of planting. He likewise says ash, intended for timber, is best when raised in the same way; and that timber is generally the best on bad land, as the slowness of its growth increases its hardness.

Mr.

Mr. Chambers observes, that on this heath-land (where it seldom happens that any tree grows well but fir), for an ornamental plantation, he would plant 3000 Scotch firs, 1000 spruce firs, and 1000 Weymouth pines to an acre, taking care at all times to put the Scotch firs at the outside, to serve as a protection against the North wind, and against the sun on the south-east. The planter must have *wads* to go by, or he will lose himself, and not plant in rows both ways, but as much zigzag as possible.

The distance should be three feet each way; the expense of the plants is about 5*s.* a thousand, and a man and a boy will plant 500 in a day: the boy carries the plants, and the man makes an incision with a spade, and afterwards treads up the place. The whole expense is about 2*l.* 5*s.* an acre; or, as the Weymouth pine, and the spruce fir may be 1*s.* a thousand more, it may amount to 3*l.* an acre to complete the whole. Mr. Chambers very much approves of my method of making narrow plantations first, and says if they were crooked they would be the better.

Spanish chesnut, when planted, ought to be cut off three times, or they will be scabby; when they have been cut off they grow with a close bark.

CHAP. XI.

WASTES.

THE south-east part of the county, extending from Piddletown, Bere Regis, and Wimborne Minster, to the Purbeck Hills, is a most dreary tract of heath land, and is scarcely capable of any improvement in the hands of the agriculturist. Marl is the principal agent that can be employed in the improvement of dry sandy heaths, and of this, very little is to be found in any part of the sandy district.

Potters' clay is abundant in some places; but this proves of no utility as a manure; and apparently the whole substratum of the heaths is a clay of a somewhat similar quality, containing little or no chalk in its composition. There are, as may be expected, a considerable number of cultivated spots in this district, and some of moderate fertility near the banks of the Stour, the Frome and the Piddle; these have been improving gradually for many ages, by means of the sediment of floods, as well as by the use of chalk and manures of various kinds, obtained from towns, or by the process of cultivation: and there are many low spots where the continual oozing of springs has formed a soil more or less peaty, but generally very shallow, that might be improved by enclosing, draining, paring and burning, chalking, &c. but the great expense of Bills of Enclosure, will never be repaid by the improvement of a few acres.

The more elevated parts of this immense waste, admit
of

of no other improvement than planting with firs, &c. and their value will not increase very rapidly even by this means. Mr. Willis of Norden, near Corfe, is of opinion, that the heathy land will yield but little profit when planted with firs. This kind of wood is not very useful as an article of firing; it will not last many years when employed in building sheds, &c. and quickly takes the dry rot, in places inaccessible to the air; it brings but little money, even in these dear times, and would not be much wanted in the event of a general peace. In Mr. Willis's opinion, the planting the heaths would be very injurious to the poor in the first instance. At present, much turf is procured from the heaths, at the rate of 2s. 6d. per 1000 turfs, which are conveyed many miles by the farmers for the use of their labourers; and the want of this article of firing is much felt and complained of by the poor at Ringwood, &c. where the system of planting has become prevalent. A few cattle are kept on various parts of the heaths, and some poor half-starved sheep are occasionally seen wandering about, which are sometimes almost entirely swept off by the rot; and even the rabbits share the same fate.

Uddings Park was formerly heath land, till reclaimed at a great expense, by draining, &c. some of it is now so far improved, that it has been known to support five sheep per acre, for seven months together. There were, however, some turnips in a heathy part of this park in 1810, which were so poor, and over-run with the corn spurry, &c. as to afford no prospect of repaying the expenses of cultivation. Many hundred acres in this neighbourhood have been planted with firs, &c. by — Greathead, Esq. at the expense of 5*l.* an acre, the planter keeping the whole in order for three years. Some low moist soils near Uddings Park, rather of a peaty nature, seem

seem to have been cultivated, and afterwards neglected: at present, they are covered with no kind of vegetation but a few tufts of various kinds of sedge, and other coarse grasses.

An attempt has been made to cultivate a part of Canford-heath, a few miles from Poole; but it has not the prospect of being a very successful one.

Mr. Park of St. Giles's, would not advise any farmer to accept of heath land, rent-free, on condition of its being brought into cultivation; some of the heaths might be chalked, and some crops might be obtained from them by a liberal allowance of manure, but which would have the effect of ruining the rest of the farm, and its occupier. Mr. Park, and several other gentlemen, concur in the opinion, that the heaths may be materially improved by planting, and much has been done by J. Frampton, Esq. of Moreton, and many other gentlemen, and lately some extensive plantations have been made on Canford-heath, which has been divided by an Act of Enclosure.

Firs have also been planted on the waste lands near Weymouth, with every prospect of profit and success.

There are probably 50,000 acres of open heaths, and fir plantations on a similar soil.

Granborne Chase.—This Chase is a free warren, and was a gift of the Crown to Lord Rivers, who has a right to keep deer all over it.

It consists principally of hazel wood, with some black thorns, and a few timber trees: the wood is cut at 12, or 13 years' growth, and the deer are fenced out of these parts for three years, by very high strong hedges, after which time they run all over it, and it is supposed that they do some good by keeping down the blackthorns. The Chase is pernicious to the farmers in the neighbourhood,

hood, and is the occasion that few turnips are sown, as the depredations of the deer on this crop are great, and cannot be prevented.

The Downs—Occupy a large portion of the county, and are in general destitute of shelter, either from trees or hedges.

“ The most striking feature of the county, is the open and unenclosed parts covered by numerous flocks of sheep scattered over the downs, which are in general of a delightful verdure and smoothness, affording a scene beautifully picturesque.”—*Claridge*.

The down grasses are mostly of a slender and diminutive kind, yet the herbage is said to become hard and unpalatable, if it is not fed down very close. In some parts of the downs there is an intermixture of a kind of hard *carnation*, or sedge-grass, of a blue or a yellow colour; and in other places the herbage consists almost entirely of wild burnet, mouse-ear, moss, &c. In general, the downs appear smooth and agreeable to the eye, but there are occasional patches of ling, or heath, and furze.

The heath plant seldom appears on those parts of the downs that are so thinly covered with a dry loam, that the vegetable fibres may be supposed to penetrate into the chalky substratum, but is more generally the occupier of those spots where the chalk lies deep, and the soil may therefore be considered as little different from the sandy heaths.

The downs along the western borders of the chalky district, by Up Cerne, Evershot, &c. are in a very rough state. In this neighbourhood, there are deep beds of gravel, sand, and clay, above the chalk; and the surface is covered with a mixture of heath and furze. These articles

ticles are useful in supplying fuel to the labouring classes ; and it is not improper to permit a few furze bushes to be scattered over the downs and sheep pastures, as they afford shelter, as well as pasturage to the sheep in winter.

The upland part of the county contains a very great extent of down-land, as well as some rough and coarse pastures, which in their present state are but of little value. A great part of this land might be converted to tillage, to the profit of both landlord and tenant. It would keep more and better stock than it does now in its natural state, and would produce large crops of corn under good management, and a proper rotation of crops.

Such of the proprietors as doubt the truth of this assertion, may easily make a temporary experiment, by hurdling off 10 or 12 acres of down, or any other rough pasture, that has sufficient depth of soil for the plough, and crop it in the following manner, viz. 1st, year, Turnips; 2nd, Spring vetches fed off, and into turnips, and rape the same summer ; 3d, Oats, or barley, with grass-seeds ; 4th, Grasses, mown, and the hay spent on the same field in the winter ; 5th, Grass, or rape, summer-fed ; 6th, Wheat or oats, according to the nature of the soil, &c. to be followed with turnips and rape, with occasional variations. There is not a doubt that double the weight of provender would be provided for stock by this means, as could have been produced by the same land in its natural state, during the whole seven years, independent (as before stated) of the corn crops. The first process for converting such lands into tillage, ought undoubtedly to be that of paring and burning.

Mr. Wickins would never suffer maiden downs to be broken up, as he believes a turf of equal value could never be restored. Such as have been broken up near Blandford, and elsewhere, he observes, have been reduced

duced to a *caput mortuum* by burning, and will never recover their fertility; many of them are not worth 5s. per acre, while others are worth 8s. or 10s. an acre. Mr. Park of St. Giles's, says maiden down ought never to be touched; but he does not appear to entertain the same objections against ploughing, or even burning such parts of the down-land, as has been cultivated and injured as much as possible by the farmers of ancient times.

The necessity of folding sheep on the arable land, and thus making the downs as poor as possible, is asserted on all hands. If this is not done they say the arable will decline in value.

Mr. Park believes there is nothing so useful as sainfoin on poor thin chalky soils. It produces frequently two tons per acre, of excellent hay, for many years together, and sometimes continues to be a tolerable plant for 15 years; but it leaves the land poor and foul, and can scarcely be sown again in the same field, in a man's lifetime.

According to Mr. Shaw of Spettisbury, the downs in that parish are worth about 5s. an acre, and keep, perhaps, two sheep an acre for three months. They produce little grass before Midsummer and nothing in the winter.

The Commons—Of this county are, for the most part, included among the heaths and downs, which could not be enclosed and fenced without great expense. On this subject Mr. Claridge remarks, "The greater part of the commons in the enclosed country are stinted, one horse or two beasts to a leaze; the horse leaze is estimated (in 1799) to be worth 30s., and half that sum for a beast."

CHAP. XII.

IMPROVEMENTS.

SECT. I.—DRAINING.

THE major part of the clay district is uneven or hilly ground, and frequently contains chalk, sand, or broken strata of limestone. From this it may be presumed, that draining will be a very necessary operation, while the abundance of stone will contribute much to the ease of execution and durability of the work.

The exertions which have been made in this branch of improvement, are very considerable and meritorious. Much draining has been done in the vale between Portisham and Abbotsbury, by first cutting a trench twelve inches wide, and afterwards another, twelve inches deep from the bottom of the first, and four inches wide, covering the narrow part at the bottom by a reversed turf, which is supported on the shoulders which are left for that purpose.

Some drains have been filled with stones at Portisham; but the carting of the stones upon that cold clay soil in winter is deemed very injurious.

Mr. Groves of Luke Farm, in Abbotsbury, has had experimental proofs that draining will not answer on strong tough clays, except the drains are filled with stone to within six inches of the surface. Unless it be thus performed, the water will almost cover the ground in rainy weather, while the drains remain nearly dry. These circumstances seem to be well understood in most parts

Mr. Davis of Swyre, has drained 134 acres with stone, at an expense of 6*l.* an acre, and much of the pasture-land has been drained with *sods* only.

Mr. Bishop of Cheddington, has drained 200 acres of his own estate, some with turf, some with stone, and a part with furze. The expense of digging, &c. 7*d.* a rope of 20 feet, and 1*s.* when done with stone. The mole-plough has been tried in the neighbourhood, but did not answer, on account of the land having some gravelly veins under the surface.

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draining is about 40*s.* per acre, beside the carriage, &c. of the stones. By this it would appear, that the drains are on the average almost two poles apart, as they cost about 6*d.* a *gourd* for stone, and 5*d.* for turf.

Mr. J. Bridge thinks the whole expense of stone-draining is scarcely so little as 2*s.* 6*d.* a pole, which would amount to no less than 8*l.* or 9*l.* per acre.

Mr. Ottan of Wootton Fitzpaine, states the expense of draining at about 14*d.* a rope of 20 feet, for digging and filling, and probably 5*s.* when all expenses are included. The stone is conveyed in a waggon with four horses, at a guinea a day.

At Dallwood, a boggy close of three acres has been drained by Mr. Stocker, at the expense of 40*l.* The stones were brought from the distance of a mile, and laid in the drains after the rate of one dung-pot of stones to a rope of drainage, the digging and filling of which cost 20*l.* at 1*s.* a rope.

It is almost unnecessary to add (though it is well worth consideration by those who think leases useless), that this field is Mr. Stocker's own property.

Mr. Garland of Wareham, has made some strong clays at Lychet Minster very productive, by means of draining, which were formerly said to be incapable of bearing any thing.

At Beaminster, Mr. Cox and Mr. R. Bridge have drained many acres of pasture-land, &c. with stone, in drains two feet deep; and Mr. Cox of Fifehead Magdalen, has made great improvements by draining with stone and turf, and Lumbert's mole-plough, which is worked by means of one horse turning a windlass, &c.; and is understood to prove very serviceable on clays that are not too loose, and which are free from large stones or veins of sand or gravel.

Lodmore,

Lodmore, near Weymouth, is a boggy tract of considerable extent, which Mr. Henning believes is capable of drainage, but some opposition of interests has hitherto prevented the attempt from being made.

Lord Digby repays his tenants one half of the expense incurred in draining; and has thus given an example of liberality worthy of universal imitation.

Those gentlemen farmers who occupy their own freehold or leasehold estates, appear decisively to take the lead in the improvement of the soil in this county; very much has, however, been done by many other farmers, who appear thus to place a degree of confidence in the honour and generosity of their landlords, which a seven years' lease will scarcely be thought to repay.

Many of the sloping sides of hills round the Vale of Blackmoor, &c. are often drained by open cuts across the declivities, especially in pastures where there are no springs; a mode of drainage which cannot be used in other counties, where the pastures consist of ridge or leys running straight up the hills.

There is much boggy land near the river Allen, between St. Giles's and Wimborne, which it is intended to drain by the authority of an Act of Parliament.

SECT. II.—PARING AND BURNING.

THIS practice, which is termed *burn-baking*, has made but little progress in Dorsetshire; some of the principal land-agents, &c. are so inimical to it, that it is difficult to suppose their opinion is unmixed with prejudice. Mr. Andrews of Orchard, and another gentleman, who formerly burn-baked 60 acres in the parish of Chettle,

entirely disapprove of it. In their opinion, the fire not only consumes a part of the soil, but leaves the remainder of such a dry dusty nature, that a person can scarcely walk over it without sinking almost to his ankles at every step. It makes the soil so fertile at first, that 40 bushels of wheat per acre are sometimes obtained, but after a few crops, it becomes exceedingly poor, and nothing will restore it to its former fertility. Burned land, they add, will never bear grass more than one year at a time afterwards, and therefore cannot be laid again to permanent pasture; it bears a bad thin-bladed grass, which no cattle will eat, and which has roots like *shalot*. Yet Mr. Andrews allows, it is proper to burn slightly such strong land-pastures as are rough and sedgy, previous to breaking them up.

The great objection which is here brought forward against burn-baking, is its tendency to make the land too light; an effect which takes place in a permanent manner, in proportion as the clayey particles of the soil are turned to brick-dust, but probably no farther.

The irreclaimable state of poverty which succeeds, is probably, in most cases, the effect of growing corn crops, and thus conveying away all the principles of fertility, instead of mixing them again intimately with the soil, by the growth and consumption of turnips, tares, rape, &c.

It may be remarked too, in this place, that the land in question has been ruined only so far as to render it incapable of bearing more than two or three white crops in succession; which is the practice at the present time.

Mr. Wickins of Mapperton is of opinion, that this process injures and diminishes the soil, even under the best kind of management; the upper inch of the soil on the downs, which is worth more than all the rest, is nearly destroyed by the fire, and what fertility remains,

is washed down in a few years into the chalky substratum, and the soil is left a mere *caput mortuum*, incapable of producing any thing valuable. He says, there are numerous instances on Salisbury Plain, and some in Dorset, where lands that have been burned, perhaps a century ago, may be distinguished at a distance. Several other gentlemen express a similar opinion on this point; but their opinion is scarcely to be deemed an impartial one, when they predict the ill success of this process, under good management, from observing the consequences of it under opposite circumstances. There is great reason to believe that the downs, which were burned a hundred, or even fifty years ago, produced no turnips, or other green crops, as long as they would produce a sufficiency of corn to repay the expenses; and this, without any other manure than perhaps a little sheep-folding, though the straw thus obtained afforded perhaps enough manure to dress as many acres, on some other parts of the farm, at the rate of 20 or 30 cart-loads per acre. The scanty produce of these burned lands is also conveyed away, as much as possible, by folding sheep, up to the present time.

Mr. Henning of Dorchester, thinks this process of burning cannot be very pernicious under good management, as it is now common in Wiltshire, where the soil of the downs is much thinner than those of Dorset.

Mr. Willis of Corfe, has burned some rough, heathy ground, and planted it with potatoes. At Hook, some land has been pared and burned; and Mr. Bishop of Cheddington is of opinion it will be useful, as the land is not light.

Burning has been tried at Melbury Osmund, but is not approved, as the clay turned to a hard, brick-like substance. The most rational advocates of burning ad-

mit, that both clay soils, and those of a lighter kind, should be pared as thin as possible, and the clay should not be burned to a hard brick.

A field of turnips, belonging to Mr. Spear of Monkton, exhibited almost as spotted an appearance as is seen in burn-baked fields, which was caused merely by burning couch-grass in the common manner, and spreading the ashes. This effect, he adds, cannot be prevented, unless the whole soil be shovelled away; and it seems to indicate, that it would be beneficial, if possible, to heat the whole soil in the same degree as the part is heated which is immediately beneath the heaps of couch. Mr. Spear seems to be neither friendly nor inimical to the burning process in general, but he allows that burned ground does not bear seeds well afterwards, and is apt to produce much strap-grass, which runs along the surface.

Mr. Park of St. Giles's, has no bad opinion of this practice; he says many downs have been broken up both with and without burning, and as the soil here, and along the borders of the heathy district, is not of a light nature, it is less likely to be injured.

It is probable the process of burn-baking will be advantageously resorted to, when the intended drainage of the boggy tract between St. Giles's and Wimborne is put into execution.

The objection which is brought forward against burning, on account of its consuming the soil, is not strictly founded in truth, as no kind of earth is capable of being thus destroyed. It cannot be denied, that a portion of vegetable matter is consumed and lost, but it is contended, that the ashes which are left, possess the power of assisting to produce more vegetable matter than is lost by burning.

Yet it is allowed on all hands, that the operation of
fire

fire brings the powers of the soil so completely into action, that the defect of omitting to manure the land till it appears to need it, is, (for some unknown reason), almost irretrievably ruinous, and is nearly similar in effect to that of feeding an animal already half dead by starvation.

In Chap. XI. will be seen Mr. Hott's opinion on the propriety of breaking up some of the downs by the process of burn-baking; and as he has had some experience in this line, both in Oxfordshire and in this county, his arguments in defence of it are here inserted.

" I am aware that many people are prejudiced against paring and burning, but, from the knowledge I have had of its good effects upon the stone-brash hills in Oxfordshire, as well as upon the Gloucestershire Cotswolds, and the chalk hills of Berkshire, where it is fast spreading, as well from my own practice as from that of others, I am fully convinced there is no system so good for converting into tillage all kinds of down land, poor pastures, and old French-grass layers, where the soil is not too flinty to obstruct the paring-plough. I do not mean, however, to include the very poor thin down land that has not a sufficient depth of soil for the plough, nor those pastures that will, in their present state, support a considerable quantity of stock at an early season of the spring.

" I have seen and known the practice of burning all my life, and so did my father before me, and never knew any injury done by it, when performed by good farmers; but on the contrary, very great advantages have ensued both to landlord and tenant. Yet I never knew this, or any other mode of converting land to tillage, succeed well in the hands of bad farmers.

" I am positive it can be nothing but the abuse of the practice,

practice, by taking a succession of corn crops, that can bring it into disrepute.

“ There is much unprofitable pasture-land in Dorset, that ought to be broken up by paring and burning, with the addition of chalk and lime where the soil requires them. It might be made to bear corn but once in three or four years, with green crops and artificial grass between.

“ That by thus converting a part of the rough pasture and down land of this county into tillage, there would be an advantage, I am well convinced, and that both to landlord and tenant; the latter being enabled to keep more, and better stock, and the former receiving a moderate increase of rent.

“ The practice is spreading in most counties, and is creeping into Dorsetshire, where at present it is in its infancy, and of course but little understood.

“ There is a prevalent idea, that burn-baking makes a light soil lighter still; but let any person who is unacquainted with the practice take a journey in the spring months into Gloucestershire and Oxfordshire, where it is practised upon the thinnest and lightest soils, with a calcareous substratum, and inquire the particulars of the practice, and the result. Perhaps centuries have elapsed since its first introduction, yet they will probably be told, (as a sensible man told Mr. Young), that were it not for sainfoin, paring and burning, and turnips, the Cotswold farmers in Gloucestershire, and the stone-brash farmers of Oxfordshire, could not pay one-third of their present rents. In fact, I know not of one practical farmer in the above counties, who does not do it upon his own estate, not excepting even the shallowest sides and brows of hills. I have never heard of its lessening the soil, nor of its making it more light; and must again repeat my opinion,

opinion, that all pasture-land, when converted to tillage, should be pared and burned, and that all apprehensions of injuring the land, under proper management, is absurd, and utterly unfounded in fact."

SECT. III.—MANURING.

THE principal manure which is used in this county, as well as in all other places, consists of yard-dung, of course, and is here called *pot-dung*, from the provincial name of the carts which are used for conveying it into the fields.

It is the opinion of many farmers in this county, that long dung is far more useful than such as is well rotted, even when used in equal quantities; that from 20 to 30 pot-loads, of 16 bushels each, are laid on an acre; and that one load of long dung, properly applied, will prove of more service than three of short dung, which is treated in the common way by turning in the yards, and thus losing all its salts, &c. by evaporation.

The greatest part of the manure that is made in the farm-yards, (or *bartons*, as they are here termed), is laid on the second year's clover-leys, in the spring and summer previous to their being broken up for wheat: and it does not appear that much trouble is taken to heap it up and turn it over repeatedly, to assist the putrefactive process, but the system originates rather in a want of hands than in any settled opinion of long straw being a more efficacious supporter of vegetation than well rotted manure. No scruple is made in laying the manure amongst the grass on the layers in the hottest part of summer, and one gentleman observed, "I suppose your theorists will say we do very wrong, in thus exposing the richest parts

parts of our pot-dung and sheep's manure to be exhaled and dissipated by the heat of the sun."

J. Wood, Esq. of Osmington, does not like long dung, but always wishes it to be turned in the yard; and a gentleman of Wareham, who seems to be a disciple of the late Mr. Bakewell, thinks a farmer should always have a year's manure to spare. Probably in this case, as in many others, both extremes are wrong.

The Sheep-fold—Is probably held in as high estimation in this county as in any part of the world. It is considered by most of the farmers not only as a manure of a very useful kind (which no person will dispute), but as an indispensable requisite in the cultivation of the arable land, and without which the produce would decline very considerably.

Mr. R. Bridge of Langdon Farm, near Beaminster, is of opinion, that folding on seeds is not so useful as on fallow; and he thinks that 100 sheep folded on land after it has been broken up, will do as much good as five times as many folded on the unbroken leys. Wheat, he adds, is always the best on land which is hardened by the fold after it is ploughed, and scarified before sowing.

Mr. Banger of Waterson, often folds his land twice for wheat, with a good coat of manure in addition; and, in common with Mr. J. Bridge and several other farmers, entertains an opinion, that a very plentiful quantity of manure, either from the yard or the fold, is of more *proportionate* utility than a smaller quantity.

This is an opinion which, whether well-founded or not, has very much the appearance of a prejudice, and is not easily confirmed or confuted. In reasoning on this subject, it is said that a large quantity of manure causes a *fermentation* in the ground, and that when sheep are kept
in

In a grass-field without folding, it cannot be *perceived* that their manure is of any utility. It will be allowed that the force of these arguments is not very perceptible; and such as observe the luxuriance of those patches of corn which arise from the urine or dung of cattle, which is dropped while cultivating the ground, may perhaps be led to conclude, that the produce of manure is exactly in proportion to its quantity, and that 100 sheep will do as much good when they range the whole field at liberty, as if penned up in a small fold, for the purpose of rendering the effect visible.

These arguments are not brought forward with a view to make it appear that folding is of no utility, but rather that its merits are extolled, perhaps, to some degree of excess.

It is pleaded, that if sheep are not folded, they will distribute their dung with great irregularity; which, when all attendant circumstances are considered, is of no weight whatever in a level and fruitful country, where it is not necessary to impoverish the pasture to enrich the arable land; but in this hilly district the case is very different, and many of the farmers assert, that sheep left at liberty will generally leave their manure either on the tops or bottoms of the hills, while the sloping sides of them are invariably the least fertile and most in need of manure.

It is remarked by Mr. Bridge of Winford, as a common opinion, that the *gund*, *shab*, or *scab*, in sheep, is caused by folding too thickly, and consequently that many prefer folding thinly, and go twice, or even three times over the ground. This gentleman is of opinion, that 1000 sheep should manure an acre in a night, which may be called half-folding, and is worth about 20*s*. This is very near the opinion entertained by some farmers in Bedfordshire, that

that the manure of sheep is worth a farthing each per sheep per night.

Chamber-lye.—In the Isle of Portland, they have a practice of long standing, of preserving all the urine that is made in winter, carrying it out in casks, and distributing it over the wheat crops, in a manner somewhat similar to that used in watering the streets of large towns. This kind of manure has been found to answer well, as may be believed, from the average produce of the Isle being 18 bushels of wheat per acre, while that of the rest of the county is not $17\frac{1}{2}$ bushels, and the Isle of Portland is remarkably poor land.

The urine is generally put on the land between September and March: it will be serviceable if spread on the land intended for wheat, but not so much as if put on the young plants; and care is taken not to put it on the wheat near the approach of hot weather, for this would entirely destroy the crop.

Chalk—Is in great estimation, and has been found a very useful manure in this county. Mr. Bridge says a hundred tons per acre is not too much on old *ewe-leazes*, downs, &c.; but on sand or loam half the quantity is sufficient, and much less in certain situations. Mr. Spear of Monkton, observes, that on land newly broken-up, this kind of dressing is very necessary, as it prevents the growth of wild sorrel; the common quantity being 20 waggon-loads per acre, but half the quantity or less on sands.

These quantities seem to accord with the general opinion; but the old shepherd at Uddings House says four cart-loads, or 160 bushels, is the proper quantity for an acre of heath-land, and he has known great and lasting injury arise from laying 10 loads per acre on such soils.

At

At Woolbridge, chalk is used on sandy land to great advantage. At Warmwell, Mr. Billet has found a second chalking of very little service.

In the neighbourhood of Canford, chalk has been much used, being conveyed six or seven miles, but it is little used at present. It is sold near Wimborne at 2s. a waggon-load, and is mixed in composts for sandy and other lands, being seldom applied in any other shape.

There are many chalk pits at Cheddington, which were used in ancient times; and Mr. Bishop and some others are beginning to chalk again, after the rate of 50 or 60 loads per acre. Mr. Bishop observes, that it is an old opinion, that a second chalking is of no utility; but he thinks there is no doubt of its proving beneficial on the tough sour loams that cover the chalky hills in that neighbourhood.

Mr. R. Bridge believes the value of Langdon Farm is more than doubled by the great exertions he has made in chalking, liming, and draining: he observes, that chalk should not be put on young grass till it has been laid down two years.

The chalk which is used as a manure is sufficiently soft to be broken, and in some measure pulverised, by the wet and frost; and this kind is seldom found very near the surface of the ground.

Lime—Is much used in the Vale of Blackmoor, in the neighbourhood of Sherborne, Cheddington, Beaminster, Bridport, and along the coast from Burton to Abbotsbury, Fleet, and Weymouth.

Mr. R. Bridge is of opinion, that it is best worked into a compost, taking one waggon-load of lime, five pot-loads of marl, and an equal quantity of fold-dung, and spreading

spreading it on meadows at the rate of 30 pot-loads per acre.

This gentleman's method is, to carry out the manure into the meadows in July and August, and lay it in heaps, mixing it with clay and lime in November, and putting it on the land in February and March. Much of the blue marl, chalk, lime, &c. is carried down very steep hills in panniers by asses.

The most common quantity of lime is 20 hogsheads, or 80 single bushels, per acre.

At Sherborne, 90 single bushels are laid on an acre; the selling price is 6*d.* a bushel, but it is supposed the farmers can burn it for their own use for 2½*d.* or 3*d.* a bushel. Coal from the Mendip collieries costs 20*d.* a bushel at Sherborne; and lime is very plentiful, and may be obtained at no great distance in nearly every part of the clay-district.

Mr. Bishop of Cheddington, lays 25 hogsheads per acre on some strong clay loams, where the substratum is chalk. It is sometimes laid in heaps for a considerable time, and spread in dry weather, frequently by means of a shovel, from the cart or waggon which contains it, without laying it in small heaps on the ground.

Lime was not used at all in the vicinity of Cheddington, till within the last five or six years, but is now in general use.

Mr. Bishop has made an experiment this year (1810) on the best method of applying lime to turnips: one part of the field was limed, and the lime ploughed in at the time the turnips were sown; another part was sown at the same time without liming, but some lime was sown over the turnips with a shovel, soon after they came up, the lime having been laid in heaps to cool.

Though

Though the leaves of the turnips were covered by the lime, they were not perceptibly injured ; and this part of the field appeared to promise the best crop.

There is, however, another part of the same field where the land was folded, and not limed ; and this is, as may be expected, superior to both the others.

Mr. Bishop often manures for wheat with a compost of lime, mould, and dung ; and he observes, that the effects of lime are more easily perceived than is the case with chalk, in the first year or two.

At Melbury Osmund, lime is more used of late on corn-land than it was formerly ; but, through the whole of the Vale of Blackmoor, it appears that the most approved method of applying it is in composts on the pasture-land.

Mr. Groves of Abbotsbury, limes his land after the rate of about 24 hogsheads per acre. It is burned with culm at 2*s.* per double bushel, and the lime costs 18*d.* or 20*d.* per hogshead. The arable land has little manure, except the sheepfold and lime, which is mostly applied to the clover-leys.

Mr. Ottan of Wootton Fitzpaine, lays 20 hogsheads per acre ; it is first laid in heaps of four or five waggon-loads each, where it remains a considerable time before it is spread. The use of lime, according to Mr. Ottan, is undisputed on all kinds of soil in that neighbourhood ; and good crops of corn and turnips are obtained from it, almost without any aid from yard-dung, which it is necessary to reserve for the pasture-land. Mr. Ottan, though only a tenant, makes the same observation as is often made by the proprietors of land in different parts of England, where lime is plentiful and used as a manure, viz. that the pasture cannot be kept in heart, unless

nearly all the yard-dung (which is made mostly from the arable land) be laid upon it.

It is rather a modern practice in this county, to let the lime lie in large heaps for two or three months before it is spread; and it is believed to be a very advantageous one, but the reasonings on this subject are of a very vague and unsatisfactory kind. Some lay it in heaps to cool it, others to slake it, and others again because it should not slake too much. The heaps, beside being made large, are occasionally covered with mould, to keep them from the air, the rain, &c. which are believed to be injurious. Some appear to be under apprehensions that the virtue of lime may be washed away; and others think it should not be applied to the land, till it has become as cold as powdered chalk, and believe that this consequence will actually take place in a few months.

At Symonds bury, lime is often used every third year, but it is found less useful by frequent repetition; and Mr. Pittfield thinks there is much utility in changing manures, or using a different kind for every round of cropping.

The Rev. Mr. Dampier, of Langton Matravers, observes, that lime is found of most utility on some sandy loams in Purbeck; on the clay it appears of very little service. On some heath-land near Corfe, it is said that lime is injurious, though chalk is very beneficial. Mr. Wood uses no lime on his estate at Osmington: Mr. Henning of Weymouth has discontinued the use of it; and Mr. Sampson of Kingston Russel observes, that lime is of no use on his land, though chalk may be applied to advantage.

Some of the opinions which have been given on the utility of lime, appear rather contradictory, and are not easily reconciled. It is used on most, but not all of the clay

clay soils, whether they have or have not a substratum of chalk or stone, or something approaching to both.

On the other hand, it is very little used on any part of what may be called the chalky district, though the soil in many parts of it is not unlike that which has been lately limed at Cheddington, and Langton Farm, near Beaminster.

Composts—Of yard-dung, marl, road-scrapings, lime, chalk, &c. are very common in many parts of the county. They are mostly applied to sward land.

Mr. Bryant of Swyre, and many others along the coast, make composts of ant-hills with lime and a little yard-dung; they lie 12 months before they are carried to the land, and should be turned three or four times.

Mackarel—(According to Mr. Groves and others) were used for manuring land 15 or 16 years since at Bexington; and a *baskon-shark* was mixed into a compost for the same purpose, and produced a very remarkable luxuriance in a mixed crop of tares and rape.

Sea-weed—Has been advantageously used in composts at Swannage, and is sometimes ploughed into the land in a wet state. The sort that is called *kelp* is known to be the most useful, but opinions are extremely at variance on the merits of *sea-weed* as a manure; from which, perhaps, it may be concluded, that its merits are of a very moderate kind. It is certainly not much in use; part of which neglect may arise from its being difficult to get at in many places.

At Poole, it is used for making a sort of walls, in several places near the beach.

Sea-sand—Was believed to injure some grass-land to which it was applied near Swannage.

Sea-water—Was distributed in plentiful quantities on a part of Charborough-park, many years ago; but Mr. Wickins of Mapperton, under whose direction it was performed, thought its effects were rather injurious than otherwise.

Marl—Is not much used in Dorsetshire, very little of it being found where it is most needed. There is no clay-marl in any part of the sandy district; the substratum being either brick-earth, of very little value as a manure, or potters'-clay, of various degrees of purity; but no value at all as a manure.

Mr. Willis of Corfe Castle, says the potters'-clay will scarcely mix with other soil, and though it dissolves when wetted, it becomes, when dried again, almost as hard as a brick, so as to be impenetrable to the roots of plants. Mr. Willis added, that he had tried small quantities, by intimately mixing the clay with sand in garden-pots, but without any appearance of benefit. As a further proof that potters'-clay is inimical to vegetation, it is observed, that the part which is unfit for the manufacturer will be exposed to the air for many years, without producing a thistle or any other weed.

After all, it does not appear that sand is not benefited in some measure by a slight admixture with pipe-clay; for there is a clay of nearly similar appearance partly mixed with or lying immediately below the boggy and sandy mould in some enclosures near Wareham, which are lately brought into cultivation. And a small quantity of white-clay is found at Canford, which has proved of some advantage as a manure for light land, but is believed

lieved to be most beneficial when mixed with chalk in composts.

Mr. Stent of East Morden, lays a kind of red mould on the heathy land, and finds it very useful. No marl is to be found there.

The substratum of great part of the Vale of Blackmoor consists of blue marl; and Mr. Cox of Fifehead Magdalen, has much improved his estate by the use of it, in conjunction with draining, &c.; and he believes that much land in the Vale is sufficiently porous to be capable of improvement by the same means.

Mr. Cox of Beaminster, makes use of some marl which he believes is of a superior quality to the common blue clay which is often called marl.

Some marl is used at Dallwood, &c. on light sands, and what are called *for-mould* soils.

Mr. Groves of Abbotsbury, observes there are many marl-pits in the neighbourhood, but it is not known when or where the clay was used.

Soap-ashes—Have been found very useful on part of the hill of strong sour clay called Halstock lye.

Green Vegetables.—Mr. Stent observes, that several small farmers at East Morden sow buck-wheat for the purpose of ploughing it in; and when this is the case, one bushel and a half are sown per acre at the end of June or beginning of July, and ploughed in while in full blossom at the end of August; it having been previously rolled down in the same direction as the land is to be ploughed.

Mr. Stent believes it useful for manure on land which is rather strong; but it can be of little utility on light land, as it makes it still lighter. Such is also the opinion

of Mr. Gillingham of Shaftesbury, and probably of most others who give due consideration to the subject.

But whatever may be the ultimate utility of this kind of manure, it is much in use on the chalky district, in the vicinity of Blandford, Wimborne, &c.

At Sturminster Marshal, and other unenclosed parishes where the mode of cropping is fixed, it is not uncommon to sow turnips, for the express purpose of ploughing them in as a manure for wheat.

J. Wood, Esq. of Osmington, consumes a part of his broad clover with sheep, but ploughs much of it in, and is by this means enabled to get good crops of wheat, without much manure; and he adds, that the adoption of this plan would increase very much the quantity of wheat raised in England, as it would then admit of more frequent repetitions than is now the case.

SECT. IV.—IRRIGATION.

THIS mode of improving grass-land, has been carried to great extent in the county of Dorset, and one of the best books on the subject is written by Mr. Boswell of Piddletown. The following observations on this subject are extracted from the Original Report, printed in 1793. "The flooding of Meadow-land is a business of great importance in the agriculture of Dorsetshire; the proportion of water-meadows is no where so great, nor any where better managed; the early vegetation produced by flooding, is of such consequence to the farmers, that without it, their present system of managing sheep would be almost annihilated. The process of watering commences at, or before Christmas, when all the meadows are laid up, after
the

the grass has been fed down by cattle ; the channels, for conveying the water, and the hatches, are then put into complete repair. The water is taken from the rivers, or other streams, and thrown over the meadows, from one channel to another, till the surface of the whole meadow has been covered in succession ; this is repeated for several weeks together with such success, that by the middle of March there is a sufficient supply of food for ewes and lambs. The water-meadows are formed in wide beds, with channels for the water to run between ; and the descent is so well taken care of, that the water is always in motion, and is never suffered to ferment or stagnate, which it would otherwise do, and thereby the meadow would lose all the good effects of the water, in the present mode of applying it ; at the same time, great care is taken, to have a sufficient quantity of under-ground drains, to carry off the water from springs, and to make sound any boggy parts, by which means, as soon as the water has passed over the meadow the limited time which is thought proper, it is easily made sufficiently dry to be grazed by the sheep. In these meadows the ewes and lambs are continued to be grazed from the time I have before mentioned, till about the first or second week in May, when they are again watered," about a week at a time " and about the beginning of July, are fit to mow, and produce from $1\frac{1}{2}$ to $2\frac{1}{2}$ tons per acre. Many farmers whom I consulted upon this article, agreed that two tons per acre was not an exaggerated crop. When the hay is taken off they are again watered," two or three days at a time, " till September, by which time they become full of grass, and are the support of dairy cows, which are kept in them sometimes till Christmas. Sheep are never turned into them in the autumn, as the effect of rotting them is, at that season, considered inevitable.

“ No manure of any kind is ever put upon these meadows: about towns they are let as high as 50*s.* or 3*l.* per acre, and with farms at about 35*s.*

“ The first making generally costs from 4*l.* to 6*l.* per acre, after which they are attended with but a small expense, and very little trouble in proportion to the vast profit and advantage to the farmer, who gains by them three crops in the course of one year. The hay which is grown in these meadows, is not, however, much esteemed for the goodness of its quality in fattening beasts, and is therefore generally given to cows and sheep in the winter. The rivers in Dorsetshire are particularly adapted, in many instances, to favour the process of flooding the meadows, as they are frequently divided in their current into small streams, which are in general shallow, but quick and rapid, by which means they are easily diverted, and a greater proportion of land is capable of being irrigated, than in those parts of England where the rivers pass along, buried some feet below their banks, in one dead stream only. I believe I may fairly assert, that the greatest part of the best water-meadows, which are now rented at the average price before-mentioned, would not be worth, in their natural unimproved state, more than 10*s.* or 12*s.* per acre.

“ The process of watering meadows, with drawings of the best modes practised in this county, has been very ably described, and treated on, in a very ingenious publication, by Mr. G. Boswell, of Piddletown in Dorsetshire.”

The principal farmers are almost unanimous in praise of irrigation, particularly on the chalky district, where the watered meadows are mostly situated, and where the want of them is considered by the sheep farmer as a most serious inconvenience.

Mr.

Mr. Bowring of Stinsford, begins to water the meadows in November, continues the process for three weeks, and after letting them lie dry for two or three weeks, renews the process; he does not water the land in summer, which does injury by increasing the rushes, &c. The meadows are supposed to be worth 3*l.* per acre, and produce a ton and a half per acre of hay, which is worth 3*l.* per ton. The produce of the same meadows, if not watered, would not exceed a ton per acre, at 4*l.* per ton. Some parts of these meadows are flaggy and rushy, and their produce is only fit to cover hay stacks, &c. The ridges or *panes* of the water-meadows about Dorchester, and some other places, are sometimes from 20 to 30 yards across from one drain to the other, and in other cases only nine or 10 yards across; the wide panes are often too flat, to permit the water to pass off freely, and the ill effects of its stagnating are very conspicuous.

Mr. Henning of Frome Farm, near Dorchester, estimates the comparative value of watered, and upland hay, the same as above mentioned; he prefers the water of floods, and thinks the effects of water arise much from its comparative warmth, as the grass grows very fast while covered with that element. Two or three mills in the vicinity sometimes cause inconvenience in watering, and Mr. Henning says the meadows in various places are often injured by neglect in draining, as well as by the water being kept too high by the weirs belonging to meadows lower down the stream.

Watermen attend the meadows through the winter for 3*s.* an acre, but they too often neglect them, by engaging in too much business. Some of the panes on Frome Farm are 20 yards from the *carrier*, on the ridge, to the *drain* at the furrow or lowest part, which is deemed far too great a distance, but they have been laid in their present

present form many years, and could not be altered without a very great expense. There is a deep gravel almost close under the turf of these meadows, and such is said to be the case under all that are of a good quality; but below Dorchester, a kind of black boggy earth of various degrees of depth lies above the gravel in many places; these meadows are said to be *corky*, and are of very inferior value.

Mr. Boswell of Piddletown, says water-meadows sometimes turn off two tons of hay, which is worth 5*l.*; the spring feed from March to the middle of May, is worth 14*s.* an acre; and the after-grass, when the hay-crop is carried off, is worth 1*l.* per acre in the autumn.

He observes, that watering properly, prevents the growth of rushes and flags, which would soon increase if the watering were discontinued. The drains should always be cleared out once a year, but it is improper to have the *carriers* too deep, as in that case the water which remains in them is a long time soaking under the soil.

It is a general opinion, that the meadows are the best where the water soon filters through, and makes its escape.

At Piddletown, and other places, the water is often used alternately by different farmers, by agreement.

Mr. Banger of Waterson, has some sedge on a part of his water-meadows, which he says chalking did not lessen the growth of, perceptibly.

Mr. Balson of Athelhampton, is of opinion that water meadows, if formed at the present time, must cost, including weirs, &c. not less than 6*l.* or 8*l.* per acre; but little is known on this subject, as the most part of the meadows are of very ancient construction; the expense of repairs and management is nearly 10*s.* an acre, and the produce of hay is often as high as two tons.

Mr.

Mr. Alner of Piddletown, estimates the spring feed of watered land at 20s. per acre, either for sheep or cows; the hay which grows in seven weeks after the middle of May, will be on the average $1\frac{1}{2}$ tons, worth 6l. and the after-feed 20s. an acre more. Mr. Alner's meadows produced 30 cwt. per acre, in the dry season of 1810.

He says water-meadows are worth mostly 3l. per acre, and many are worth 4l. but they become gradually of less value in all the lower parts of the Piddle and Frome rivers as they approach Wareham from Piddletown, and Dorchester. This is indeed a fact well known in the county, and is ascribed to the previous use which has been made of much of the water, to the bad ochreous quality of that which oozes out of the heathy soils; to the corky or peaty soil of the meadows; and to the high level of the water, which takes away the possibility of effectual drainage at a moderate expense.

Water-meadows have been formed in Bedfordshire and other places, on peaty soils, to be flooded entirely with ochreous water from sandy soils; yet distinguished as Dorsetshire is for this branch of husbandry, the farmers seem in general to possess a very low opinion of the utility of water impregnated with iron from the heaths; and some are inclined to think it must be injurious to vegetation. It is however well known, that the chalky water is much the best, and a preference is given to that which is nearest the spring head.

At Dewlish, General Mitchell has much improved some boggy waste meadows, by raising them with chalk, &c.

Mr. Billet of Warmwell, has 50 or 60 acres of water-meadows, but they are peaty, and not good; yet he says the water is of much utility there, as the meadows would be of no value without irrigation. At Stafford, there is much

much water-meadow, but it is rather peaty, and indifferent.

Mr. Garland of Wareham, is of opinion that the water-meadows nearest that town, owe their indifferent quality to the water which springs out of the immense heaths.

There are no water-meadows at Wareham, but the low pastures are very much intersected by open drains, and are often flooded for many weeks together. Mr. Garland thinks the water-mills do not very much obstruct irrigation in this county.

Mr. Groves of Luke Farm, at Abbotsbury, has made some additions to the watered land on that farm; the ridges are laid out in various directions, according to the slope of the ground, a part of the turf is pared off both at the intended place of ridge and furrow, and the soil is taken from the latter to raise the former.

The sloping surface is made more regular in the course of time, by cleaning out the drains and carriers every year, and laying the materials thus obtained, where the ground is hollow, or too flat. The meadows are watered by the year, at 3*s.* to 3*s.* 6*d.* per acre, and the value of the land, where water is plentiful, is increased one-third or more.

Mr. Groves thinks bog-waters are of no value, unless when mixed with floods, but the water which descends from hills that have been well supplied with lime and other manures, improves the meadows in a striking manner. In general, the water has the best effect, when turned over the land almost immediately from the spring head; and where the soil is light or gravelly, it may be irrigated at all times when practicable; but Mr. Groves thinks clay soils ought never to be watered in summer,

as he has seen instances, where the production of rushes in the succeeding year, has made the ill effects of summer watering very apparent.

In his opinion, sheep may be safely depastured after Midsummer, in such fields as are not watered in summer.

The water is generally used three weeks at a time, and is always found useful when it will produce water-cresses. The intermixture of property often obstructs the practice of irrigation, else, Mr. Groves believes the river Bride, though but a small stream even at Burton, might be made to water 400 acres of meadow in his neighbourhood.

Mr. Sampson of Kingston Russel, has 20 or 30 acres of watered land, all of which is under-drained.

Mr. Bryant, of Berwick farm, in Swyre, has about 50 acres of water-meadows; they lie rather flat, and a sufficient quantity of water is not often to be obtained. Some part of them are watered by the wash of the dung-barton, &c. a small quantity of which is found very useful. Mr. Bryant thinks the water which is used immediately as it springs out of beds of chalk or limestone, is as useful as the water of floods, and perhaps more useful, as it proves beneficial even on clay soils.

Mr. Roberts of Burton Bradstock, allows the practice of irrigation to be a very beneficial one, upon all light or loamy soils; but he has seen instances in the neighbourhood, where it has been tried, and afterwards discontinued, having done a permanent injury to the clay soil, where it was used. Such, he thinks, will always be the case; and Admiral Ingram of Burton, coincides in the same opinion.

Mr. Henning of Weymouth, has much improved a poor piece of sward near the Horse Barracks, by turning over it the drainings from the barrack-dung, in the method of catch-work irrigation. This causes the growth
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of a very large quantity of white clover amongst the other kinds of grasses.

Near Cashmoor turnpike, there are several acres of water-meadow, which are only capable of occasional watering. It is said they sometimes produce more than ten times the quantity of hay that was obtained in the dry summer of 1810, in consequence of the entire failure of the water in the preceding winter and spring.

In favour of water-meadows, the Messrs. Hardy of Portisham, observe, they produce three good crops every year; and prevent the necessity of using any hay after the middle of April.

Mr. Goodenough of Frampton, has 35 acres of irrigated meadow land: he begins watering about Michaelmas, and keeps on the water about a fortnight, or three weeks, irrigating about eight or ten acres at a time, and goes over the whole in succession, three times before April. The water is not kept on more than three days at a time, in the spring. Sheep may safely feed in these meadows at any time before the middle of May, but they would be sure to be *coathed* (rotted) if put in during the autumn. The rot is supposed to be caused by the sheep eating *carnation grass*, which seems to be so called from its leaves resembling those of a pink.

Ridge-work is deemed the best where the water is plentiful, and the water is constantly found to have the most fertilizing effect, the nearer it is taken towards the spring head; but Mr. Goodenough believes, there is little utility in snow-water. This gentleman supposes the use of irrigation increases the quantity of hay about one-half, viz. from one ton to one ton and a half, which latter is the usual produce obtained by seven weeks growth after the 12th of May. The hay, if cut young, is far from being bad, though it is inferior to upland hay, the latter

latter being worth 3*l.*, and the former only 2*l.* per ton in general.

The expense of watering at Frampton, is about 5*s.* an acre, exclusive of the repairs of sluices, weirs, &c. and the 35 acres before mentioned, support about 600 couples a month in the spring; but they have an allowance of hay in addition, and are taken out to fold every night. There are many good water-meadows about Dorchester, to the origin of the rivers Cerne, Frome, and Sydling. At Sydling St. Nicholas, the meadows are narrow, but they are well ridged up, and are nearly free from flags and rushes; but this is not the case where the streams have become accumulated, and the meadows are large and flat; there they grow pretty generally in the carriers, and the drains, through good management by keeping the outlets open, may in most cases prevent their growth on the principal part of the surface.

Mr. Bridge of Winford, puts on the water at the end of October, keeps it on two or three weeks, and then lets the meadows remain dry for two or three weeks longer, and then repeats the operation. He thinks twice watering sufficient, as it produces grass in abundance, which is fed from the beginning of March to the 12th of May, and is worth from 20*s.* to 30*s.* an acre. The meadows sometimes keep three couples an acre for 10 weeks, which, at 9*d.* a couple, amounts to 1*l.* 2*s.* 6*d.* per acre. The hay is worth 3*l.* per ton when upland hay is worth 4*l.*, and about one ton and a half is the average produce; the after-grass is worth from 14*s.* to 20*s.* per acre.

Of the meadows which are watered, Mr. Bridge says, some would be good without the aid of that process, others would be very indifferent; but perhaps on the average

average they may be valued at 40*s.* per acre, and the winter feed, if not watered, may be stated at 5*s.* an acre. The same meadows, properly irrigated, are worth 3*l.* 5*s.* per acre.

Mr. Clapcot of Whitechurch, has a meadow of 40 or 50 acres, which is watered after heavy rains, &c. when water is plentiful, but there is often none. The meadow lies for the most part in a gradual slope downwards from the outsides to the middle, and the water is made to flow over it in a general way.

The river Stour is not applied to the purposes of irrigation after it enters the chalky district, but it frequently overflows a considerable quantity of meadow land, and its winter-floods are very advantageous. A gentleman at Canford tried the effects of a stream from the heaths in that vicinity, but it produced rushes, and injured good land.

William Salkeld, Esq. is of opinion, that irrigation could not produce any beneficial consequences, if applied to the meadows of the Stour in the Vale of Blackmoor.

These meadows are in general excellent land, and the river for the most part lies so low, that they suffer scarcely any injury from stagnant water, and need very little draining.

The occasional overflows of the river are beneficial but a superabundance of water entirely alters the nature of the vegetation for the worse.

Mr. Cox of Fifehead Magdalen, has lately irrigated 42 acres of his own meadows in that parish, and intends to subject many acres more to the same process. This business has been executed at a great expense, and is certainly done in a very complete manner. The surface of the ground was entirely flat in its natural state, and the whole of the turf was pared off, for the purpose of raising it

it into ridges of about nine yards wide; the earth was moved about four or five inches deep by the side of the present drains, and was used to elevate the natural soil in an equal degree, and to form the banks of the water-carriers. The main trench, which brings the water from the Stour, runs along the ends of the ridges or panes, in the centre of a kind of headland, and the whole field lies on such a gentle declivity, that the water runs down each of the carriers, and with very little trouble overflows the whole field at once. These meadows cut about 30 cwt. of hay per acre, in the present dry season; it appears to be very sweet and good, and apparently in a greater degree this year than is generally the case. But the bailiff thinks it might be obtained nearly as good in other seasons, if it were cut sufficiently early, which is the course Mr. Cox intends in future to pursue. The common produce is two tons per acre. The soil of these meadows is deep, and inclining to loam, and they were not bad grounds in their natural state. A part of another field, of a flat surface, had been watered in the spring, by turning a stream in at the gate, and it appeared to have much increased the herbage.

Mr. Cox is fortunately situated for trying experiments on irrigation, as the Stour runs contiguous to his estates for about 10 miles: he thinks there are many places in the Vale of Blackmoor where the soil is sufficiently dry in nature to be benefited by irrigation.

The opinion of the neighbouring farmers and gentlemen on this expensive experiment is not very uniform; but it appears that the more general opinion of such as are the most likely to observe with impartiality, is in favour of the process, though not without some doubts as to its permanence, and a liberal repayment of the great expenses which were incurred in its completion.

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L. Pount,

L. Pount, Esq. of Buckland Newton, is of opinion, that water, properly used, will do good on any soil.

There is a considerable quantity of irrigated pasture-land in the vicinity of Sherborne, and Mr. Fooks says it is deemed very beneficial. Some new water-meadows have been laid out at Masterton; and the quantity of meadows which are improved by the same process is considerable at Hawkchurch, and the insulated part of Dorset, which is surrounded by the county of Devon. In the rest of the county to the west of Bridport, irrigation is not practised. Some of the farmers think clay-land is little benefited by this practice, and others have a low opinion of the utility of such water as does not filter through chalk or limestone.

In Mr. Boswell's Treatise on Irrigation, he recommends the water to be thrown on the meadows for about a week in May, after the sheep are taken out; and again, for twenty-four hours, about a week before the grass is mown, as well as two or three days at a time in the autumn, to promote the after-grass.

The practice of the farmers with respect to summer-watering seems not to be very uniform: in many places little or no water is to be obtained in that season; and some farmers think it improper to water stiff loams except in winter. Water-meadow hay, according to the opinion of some writers, is diminished both in quantity and quality, if the fields are fed any longer than the end of April; but the custom of this county is to feed till the 12th of May.

The streams in Dorset are in general shallow, and have a considerable fall; the meadows are narrow, and the water is supplied with comparative regularity, in consequence of its having to filter through immense masses
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of chalk previous to its exit at the springs: and hence the process of irrigation is much facilitated.

It is difficult to state with any exactness, the comparative produce of dry and watered meadows of the same quality, but it seems to be generally allowed, that the quantity is increased by watering, at least from a ton to a ton and a half, whilst the quality is diminished one-fourth, or from four pounds to three pounds per ton. On this supposition, the following comparative estimate of the produce of a meadow either in its dry or irrigated state is formed:

	<i>Dry Meadow.</i>			<i>Ditto Irrigated.</i>		
	£	s.	d.	£	s.	d.
Winter and spring grass, per acre	0	5	0	1	5	0
Hay, 1 ton; ditto, 1½, at 4/ and 3/.	4	0	0	4	10	0
After-grass	0	15	0	1	0	0
	£5 0 0			£6 15 0		

Perhaps the whole expense attending irrigated lands is not much less than 10*s.* an acre; but some expense is saved by the early keeping which they afford, which prevents the necessity of using much hay in the beginning of spring. As these meadows never require manure, the hay they produce may be carried off the farm, without purchasing any manure in return; which is an advantage the occupier of dry meadows cannot enjoy, and is probably worth 7*s.* or 8*s.* an acre. On the whole, it may be supposed the expenses attending both modes of management are nearly similar; in which case, if the rent be deemed equal to half the value of the produce, the dry meadow would be worth 50*s.*, and the watered meadow 67*s.* 6*d.* per acre; a superiority of 17*s.* 6*d.* an

acre in favour of irrigation, which is as much perhaps as is often realised, and would afford the proprietor 10 per cent. interest on his capital, if he expended 8*l.* or 9*l.* per acre in this mode of improvement.

CHAP. XIII.

EMBANKMENTS.

THERE are no embankments for the purpose of gaining land from the sea; neither is there any land capable of this kind of improvement.

CHAP. XIV.

LIVE STOCK.

SECT. I.—CATTLE.

THERE is no select breed of cattle in this county ; the dairy cows of the chalky district, and the south-eastern parts of the county, are a long horned kind, rather short in the leg, with white backs and bellies, and dark spotted or brindled sides.

They are a mixture of various breeds from Hampshire, and other neighbouring counties, and more regard is paid to the quantity of milk they are likely to produce, than to any other quality. The coast of Dorset being directly opposite to the Isles of Alderney, Jersey, and Guernsey, it may be expected that a few of those kinds of cows are kept, as well as others that are called Norman or French cows ; but no attempt has been made to ascertain their relative merits. In the western part of the county, as well as in the Vale of Blackmoor, the cows are mostly of the Devonshire kind. This circumstance may be admitted as furnishing a strong argument in favour of that kind of cattle ; but perhaps, at the same time, it may render it probable that they are best adapted to low and sheltered pastures, and have more merit as feeding, than as dairy beasts.

Mr. Wood of Osmington, keeps Devonshire beasts, and finds them the best kind for work, for the butcher, and for the dairy.

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The Rev. Mr. Dampier keeps Devonshire cows in Purbeck : he says, " No attention has been paid to improve the stock of the county, which is a mixture of the long-horned sorts. Lately the Devonshire kind has been introduced with success, as more in number can be pastured on a given quantity of land, and they are equally hardy as the common sorts."

Lord Digby keeps the Devonshire kind at Sherborne.

Mr. Bowker of Charborough, keeps Northumberland, Holderness, and Scotch cows, having imbibed a favourable opinion of them at a former residence in the North of England.

Some people seem to think that the Holderness breed of cows would not succeed well in this county, as the pastures are in general rather poor, and much exposed to the cold sea breezes from the south-west.

Mr. Claridge, in the " Original Report," observes, that " the cattle in the eastern and northern parts of the county are a mixture of the Hampshire and Wiltshire, with many crosses of the Oxfordshire, Gloucestershire, Shropshire, and north country beasts."

"The oxen chiefly fed in the county are of the Devonshire breed, and go when fat to Smithfield market, and are said to be the finest-grained meat in the kingdom. These are mostly fed in the Vale of Blackmoor." "The other cattle grazed here are either home-breds, or heifers brought from Ringwood and other Hampshire fairs, and when fat, supply the home market, or are sent to Salisbury.

"Some farmers, particularly in the neighbourhood of Dorchester, and indeed in many other places, are very choice in their cows. The partiality for the Derbyshire and Leicestershire sorts is certainly most prevalent, and the observation is just, that those cows from the north

country breed carry infinitely more flesh than the home breed ; and those most sanguine in their opinion are positive that they produce quite as much milk, and of equal goodness ; but of this I have my doubts, particularly as they consider seven or eight quarts at a milking an abundant quantity, with the best keep ; which is certainly much less than the produce in many other parts of England."

Mr. Ilott of Milton Abbey, has some of the Leicestershire long-horned cows of a good kind, but he thinks the Dorsetshire home-bred cows preferable for his kind of land ; and his opinion is without prejudice in favour of the latter, as he is a native of Oxfordshire. Mr. Bridge of Winford, is very particular in his breed of cattle ; he draws oxen, and breeds them, and they are true North Devonshire beasts of a remarkably good kind. The cows have the appearance of being excellent for the dairy, and they have a great aptitude to fatten. They are fine in the bone, and shorter in the leg than many of that sort, and heavier in the flesh ; they are round in the body, with a proper depth, a quick eye and a small head ; and Mr. Bridge thinks they produce, one week with another, 5lb. of butter each. He has tried a cross between the Suffolk and Devonshire cattle, with a view to breed his working oxen without horns, but he does not find that answer, as oxen of that cross do not stand their work so well as the Devonshires. Mr. Bridge chose his cattle at first with very thin hides, but he found they neither worked so well nor fattened so quickly as others.

Mr. Bridge thinks the Devonshire kind of cattle preferable for work, beef, and milk ; but he allows there are some who think they are not good milkers. He prefers such as are of a general deep red colour with white noses, and

and a yellow circle round their eyes; weighing from 30 to 50 score pounds when fattened at six years old.

The Winter Food of Cattle—Is hay during the time they give a sufficient quantity of milk, but they are generally dried, and kept on straw for two months or more, in that season. As the time of calving approaches, they return to hay, and sometimes to the water-meadow in March and April.

Mr. Bridge's fattening cattle are allowed 10lbs. of oil-cake each per day, with hay, Swedish turnips, and potatoes, which are sometimes steamed. The Dean of Exeter (now Dean of Salisbury) sometimes gives turnips, &c. to his cattle.

At Sturminster, two tons of hay is deemed sufficient to keep a cow from 25 to 30 weeks in the winter. No artificial grasses are used for fattening beasts in that neighbourhood.

The Summer Food—Is almost entirely natural grass; and soiling is very little practised.

Agistments are taken into Sherborne Park, and the charge for yearling calves is 1s. 6d., for two years old cattle 2s., and for those of three years old 2s. 6d. per week. Such as take in horses in the same way charge 5s. per week.

At Sturminster, 3s. 6d. to 4s. a week is charged for the summer feed of fattening cattle.

Stalls, Sheds, and Yards—Walled round, are very common; the cattle sometimes feed under the sheds, and lie in or out at pleasure. But the Rev. Mr. Evans of Wootton Glanville, has had a clear proof that cows eat their food best in the open air, and make less waste. He did this with the advice of a Wiltshire farmer, and thinks

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the cows prefer the hay on account of their breath being dissipated in the open air, which would not be the case in stalls, or sheds. There are few people probably who will coincide with Mr. Evans's opinion, but he has tried it, and is well convinced of its accuracy; yet he agrees with Mr. Bridge, that working oxen should be kept warm and dry on account of their perspiration, &c.

Perhaps there are few who are not aware that both heat and cold are hurtful to the constitutions of all animals, for which reason yards walled with clay, &c. are much approved in this county.

Worked Oxen.—The parishes where oxen are worked are mostly in the west, and north-west parts of the county, where the Devonshire cattle are kept for general purposes, and were they thrice as numerous as they are represented to be, they would furnish, in a collective view, but a slender proof of the general utility of employing oxen instead of horses.

Mr. Strong of Powerstock, used oxen formerly, but not now, though he thinks them in some respects advantageous.

Mr. Pittfield of Symondsbury, has tried oxen, but finds they will not do on hilly grounds.

Mr. Billet of Warmwell, has no oxen now, though he thinks a farmer that has several teams should employ some oxen. He has bought a pair at three years old for 21 guineas, and sold the same at 50 guineas; but he has no good grass for their summer keep, and objects against them, on account of their slow pace, which prevents the necessary dispatch of business in the season of turnip sowing, &c.

Mr. Cox of Fifehead Magdalen, keeps some fine Devonshire oxen, which he believes are the largest in the county.

county. They are bought in Devonshire at three years old, having worked at home a part of the preceding year; after this they work two years longer, and are then fattened on grass and hay till Christmas. They are worked in gears, which are found more convenient for many kinds of work. But the usual method in this county is to work them in yokes and bows, with four, six, or even eight to a plough. In one instance, six oxen double, with a horse before them, were employed in breaking up some land in the vicinity of Stalbridge.

Mr. Clapcot of Whitechurch, uses Devonshire oxen in ploughing, and believes every large farmer may save money by keeping a few.

Mr. Barjew of Up Cerne, works his thrashing-mill by three pairs of oxen in yokes.

Oxen are fallen into disuse in the Isle of Purbeck, within the last 20 years. The Rev. Mr. Dampier observes in a letter, there are not more than three or four ox-teams in that part of the county.

Mr. Bridge of Winford, has 600 acres of arable land, and performs the greater part of the ploughing on this farm, by 36 oxen, but he keeps 14 or 15 horses besides. Two sets of oxen are employed in a day; the first set work from half past six o'clock to eleven, and the second set from one till six o'clock in the evening, ploughing three roods per day each set, when the land works freely, and walking almost as fast as horses. They are worked for three years, the young ones four in each plough, on account of their comparative weakness, and the aged one in pairs. All the old oxen are *cued* (shod) with six cues, which cost 1s. 6d. They are kept entirely on grass through the summer and autumn. In the winter it may be supposed they do but little work, as they eat nothing but straw from Christmas to Candlemas; but after this
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time they are kept on good hay, and consume about two cwt. each till they return to grass at May-day. They never have any corn, but Mr. Bridge finds it the best method to keep them warm and dry in stalls, and he believes dairy cows should be kept up in the same manner.

Mr. Wood of Osmington, works oxen, four to a plough; they are kept entirely on grass and hay, and plough three-fourths of a customary acre between seven in the morning and two o'clock in the afternoon, which is as much as would be done by horses. They are worked from three to five years of age, in wooden yokes and bows; collars, &c. are deemed too expensive, and they are never shod.

Mr. Ilott of Milton Abbey, works oxen; he puts four to a plough, and sometimes six. The subject is altogether a very complicated one, and it is not possible to obtain satisfactory means of furnishing an estimate of the relative utility of oxen as labouring cattle. On the whole, though it may be presumed that oxen are advantageously substituted for horses, under certain circumstances, yet the example of the county of Dorset is not likely to prove a means of extending the use of them over the kingdom. They are rejected by a great number of farmers, who possess all the knowledge of their art, that is supposed to be the natural result of a liberal education, and an extensive acquaintance with eminent practical men. Many of them breed the kind of cattle which they refuse to work, and others put four or six to a plough, because they are convinced the work is too hard for a smaller number.

They are not prejudiced against the modern fashion of ploughing with pairs of horses, because their horses or oxen generally work in that manner, whether they have two, four, six, or eight in a team.

Dairying.

Dairying.—"The management of the dairy, as every where practised in Dorsetshire, is unknown to many other parts of the kingdom. The cows are all let out by the farmer, to a *Dairy-man*, at a fixed price, according to the quality of the land, and the supposed produce of the cattle. In some of the poorest parts of the county as low as 50s. or 3*l.* per head, per annum, and in others as high as 7*l.* or more; but I believe the general average throughout the county, will be about 6*l.* for a cow of full growth, 4*l.* for heifers, and 4*l.* 10s. or 5*l.* for three years old cows. The usual plan for letting a dairy is this: the farmer finds the dairy-man a certain number of cows for one year, commencing at Candlemas, at a fixed sum agreed on. He feeds, fodders, and supports the specific number throughout the year; he finds a house for the dairy-man and his family to live in, and allows him to keep as many pigs and poultry as he thinks proper, and the keep of a mare to carry out his butter, &c. which, by producing a foal yearly, is considered a material advantage to the dairy-man, who perhaps sells it, when weaned in November, at from 8*l.* to 10*l.* If the farmer is inclined to let his dairy to another man, he gives the dairy-man notice before All-Saints-day, and by custom, the quarter of a year from November to February is considered sufficient, and the dairy-man quits the house and gives up his bargain the ensuing Candlemas.

"The dairies in general are managed by making all the cream into butter; and from the skimmed milk an inferior sort of cheese, which sells from 25s. to 30s. per hundred weight in the county; and the butter, which is worth 8*d.* or 10*d.* per pound, is in general salted down in tubs, and supplies the Portsmouth and London markets."—(*Claridge*, 1793.)

The above extract from the "Original Report" furnishes

nishes an accurate description of the present practice of the county; but a great alteration in the prices may be expected to have taken place since that time. Some of the prices at present given for dairy cows are as follow: Piddletown, 9*l.* each; Stinsford, 10*l.*; Bettiscombe, and the average of the neighbourhood, 11 guineas; Wootton Fitzpaine, 10*l.*; Powerstock, 11*l.*; Purbeck, 11*l.*; Swyre, &c., 10 guineas to 12 guineas; Fifehead Magdalen, 13*l.*; Portisham, 10*l.* to 12*l.*, and said to be some in the county as high as 14*l.* each. The average price of a dairy cow, on the chalks and other soils of moderate fertility, is probably about 11*l.*, but in the richer parts of the Vale of Blackmoor, about 12*l.* The practice of letting cows to dairy-men, has made it almost impossible to ascertain with any degree of precision the average produce of cows, as the immediate interest of those people obviously forbids them to furnish correct accounts. The following observations on the management of dairies, &c. may serve to elucidate some parts of the business which are not explained by Mr. Claridge.

At Powerstock, the allowance to each cow is from one to two acres of summer grass, and an acre of *cegrass*, or such as has been mown: the average produce of butter is said to be 160*lbs.* per cow per annum, and one hundred weight and a half of skim-milk cheese. The farmers agree to have leave to turn in sheep with the cows the second week in November, and the dairy-men pay for the cows by regular quarterly payments.

J. Wood, Esq. of Osmington, lets heifers with the first calf at 7*l.* each, and the dairy-man says they produce only 2*lbs.* of butter per week, on the average. The milk is skimmed only once, after standing 24 hours, and this seems to be the general practice of the county.

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The butter is mostly carried to Weymouth, and sold at 17*d.* per lb.; the skim-milk-cheese is 4*d.* to 4½*d.* per lb.

The farmers generally rear as many of their own calves as are wanted to supply their dairy stock, and according to Mr. Billet of Warmwell, they are generally kept on milk for a quarter of a year, and the dairy-man is allowed a quarter of the price of a cow for keeping the calf. Cow-calves are generally weaned about February, and bull calves are killed between four and eight weeks old, weighing about 20 lbs. a quarter, if kept six weeks.

From the practice of killing calves at four or five weeks old, it may be expected the veal is not very fat, though it is plentiful, and consequently cheap, being often not more than 6*d.* a lb., and sometimes as low as 4*d.* The value of calves between three and six weeks old, is said to vary from 15*s.* to 42*s.* each.

According to Mr. Groves of Abbotsbury, it is customary to allow the dairy-men 14*s.* for calves of a week old, and when a cow dies, another must be purchased to supply the loss to the dairy. Mr. Groves's dairy has a small stream of water running through it, which he thinks very useful in keeping it cool and sweet.

Mr. Groves of Bettiscombe, believes the Devonshire cows are not so useful as the half-breed between them and the common Dorset kind. The produce obtained from a dairy of 30 cows in one season, was 35 tubs of seven dozen lbs. in each, and 12 firkins of 14 dozen lbs., which is about 165 lbs. per cow.

The price of butter generally averages about 14*s.* 6*d.* per dozen, avoirdupois weight, at London; but Mr. Groves says 18 ounces are allowed to a pound of butter in Dorset.

Mr. Bridge of Winford, believes the average produce
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of dairy cows falls short of 160 lbs. each, of 18 ounces to the pound; the produce of cheese is about one and a half hundred weight. Some of the Devonshire cows, he has known to produce six or seven lbs. of butter per week in the beginning of summer; and in one rare instance, no less than 14 lbs. of butter avoirdupois have been obtained from a cow in one week.

Dairy cows are here let at 10*l.* each; the cow-leaze is bid up for them, from the 5th of April till the 12th of May; at which time they are allowed about one acre and a half of land each, rented at 30*s.* per acre. They continue in the cow-leaze till about the 20th of August, when they are allowed about the same quantity of after-grass, and the cow-leaze again till Martintide (Nov. 23), after which time they are kept on straw only. They are dried about the end of the year, and calve in February, March, and April, and the value of a cow and calf varies from 13*l.* to 16*l.* The profit of the dairy-man is supposed to be about 3*l.* per cow.

Some of the farmers let their cows to several dairy-men, in lots of from 20 to 40 cows. Mr. Ottan of Wootton Fitzpaine, lets 50 cows to a dairy-man, who ploughs and does other work at his leisure. They are let at 10*l.* each, on the average, and the butter is salted, and sold to buttermen in the autumn.

The waggons which carry butter and other articles, are four days in their passage from Bridport to London.

Some of the skim-milk-cheese, which is called by way of ridicule, *double Dorset*, is streaked with a kind of blue mould, and Mr. Ottan says, this blue cheese is made by breaking and sprinkling the curds with flour after they have been pressed.

Others ascribe the blueness of this cheese to the soil, but it does not appear to be known whether it is ascribable

able to the soil or the management; at any rate, it is deemed an excellent quality, and renders the cheese which possesses it far more valuable.

Mr. Claridge mentioned "a better kind of cheese," but at present, there is little or no *raw-milk cheese* made in the county.

The general plan is, to skim the milk only once, about 24 hours after it is taken from the cows; but in winter it sometimes remains in the vessels 36 hours, and in summer only 12 hours, in very hot weather, before that operation takes place. In the latter case 12 hours, or half-meal cheese is made, which is of course superior to the common kind.

Mr. Bryant of Berwick, keeps a mixture of the common and Devonshire cows, which he prefers. He says the Devonshire cows have thin skins, and are very tender; they will often stand under hedges, while the common kinds are feeding. Such calves as are not wanted for rearing, are fatted from three to six weeks, and the veal makes from 4*d.* to 9*d.* a pound.

The calves are dropped from Christmas till after Lady-day, and Mr. Bryant's cows have more than two acres each of summer grass.

At Stinsford, dairy cows have one acre and a half each of water-meadow.

At Netherbury, they have one acre and a half each of good summer leaze, and one acre of after-grass. At Fifehead Magdalen, they have one acre of grass in summer and another acre to produce hay.

At Morden, the cows are mostly small, and cost with calves, from 12 to 14 guineas each; they are let at 9*l.* or 10*l.* per annum, and are supposed to produce about 100*lbs.* of butter, each. The butter is sold at Poole, at 14*d.* a pound, and the skim-milk-cheese is worth 6*d.* a pound, but not much is made in the neighbourhood.

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Mr.

Mr. Conway of Netherbury, procures Devonshire cattle from South Moreten. The bulls cost from 20*l.* to 25*l.* and heifers of three or four years old, from 12 to 18 guineas each.

Mr. Grosvenor's Devonshire cattle, some years since, cost 16 guineas each; and Mr. Stent believes, that the Devonshire cows at present in the county, are worth about that sum on the average.

At Sturminster, the average value of cows with calf, is said to be 15*l.* but varying from 10*l.* to 20*l.* Beef is 6*d.* and veal 5*d.* per lb. on the average.

Mr. Stocker of Dallwood, which parish is surrounded by the county of Devon, thinks the cows of that county are good milkers, and states their average value with a calf, when four year old, at 16 guineas, varying from 14 to 18 guineas in general.

J. B. Bower, Esq. of Iwerne, has adopted the plan of tying up milch cows, in winter, in stalls, each of which contain two beasts, with a passage before them for hay, &c.

By this means, he is of opinion that nearly half the ordinary allowance of hay may be saved, which is the quantity that cows tread into the ground or otherwise destroy on dirty soils.

Mr. Sampson of Kingston Russel, keeps dairy cows of the half Devon breed. Those of the pure Devonshire blood he deems too tender for his cold land.

Mr. Bishop of Cheddington, thinks the Devonshire cows give as much milk or more than the common kind, and are preferred by the dairy-men.

Mr. Portman of Bryanstone, prefers the Devonshire cattle, though they are considered to be rather tender. He says their calves fat much faster than those of the common sort.

Mr.

Mr. Spear of Monkton, keeps two small Norman cows, which have produced one dozen and a half of butter per week.

Mr. Balson of Athelhampton, observes, that cows of eight or nine years old, are preferred by the dairy-men, and of course many such are kept all over the county : they are sold when barren at about 10/. each.

Mr. Alner of Piddletown, prefers the Devon cattle ; he says they fat best, and contain the least offal, and milk as well as the home-bred kinds.

Mr. Willis of Corfe Castle, remarks, that the Dorsetshire fashion of letting cows to dairy-men is not approved in other counties ; but, as the cows are milked, and the butter and cheese made and sold by the dairy-man and his wife and family, it is rational to suppose they will take more care of their own property, than they would of their masters' ; and thus it proves beneficial to both parties.

Whatever may be the utility of letting cows to dairy-men, it will be admitted as a proof that the farmers have more business than they have leisure or inclination to attend to ; and therefore, that it would be much better for the country, and not much worse for themselves, if the size of their farms were diminished. The dairy and cheese-making processes are too servile employments for the wives of the large farmers, and indeed it would be absurd to suppose the wife or daughters of a man possessed of property to the amount of 10 or 15,000/. would engage in the drudgery of the dairy. Some of the farmers let as many as a hundred dairy cows to three or four dairy-men ; and in the last century it is probable that the labour of such a dairy was performed by half a dozen farmers' wives, who deemed it no drudgery, while they were permitted to consume a part of the produce.

The custom of letting dairy cows appears to be little calculated to promote a spirit of improvement in the breed of cattle. Mankind are in general so much biassed towards every thing that is become a custom, that it may be presumed a farmer would be less able to advance the letting price by purchasing what he might deem better cows, than he would be able to keep up an established price, though some of the cows might be inferior in value. One of the evils of large farms is, however, diminished in some measure by this practice, as it furnishes some inducement to economy, in those who have the means of obtaining a small sum of money; and their example will not fail to prove in some degree beneficial to their family and acquaintance.

In the Vale of Blackmoor, the farms are not so large as in the upland part of the county; and many of the leaseholders and others in that district, manage their own dairies in the same manner as is common in other parts of the kingdom.

The price of potted butter in 1810, varied from *14d.* to *15d.* per lb.; but perhaps *14d.* was about the average price; and the quantity of cheese from each cow is one hundred weight and a half, according to Mr. Bridge of Winford.

The expense, according to these data, &c. will stand thus :

	£	s.	d.
Butter, 160lb. at <i>14d.</i> per lb.	9	6	8
Cheese, $1\frac{1}{2}$ cwt. at <i>5d.</i> per lb.	3	10	0
Half the profit of a pig	1	0	0
A calf	1	0	0
	£14	16	8
Price paid to the farmer	11	0	0
Dairy-man's profit	£3	16	8

Now

Now if the milking and other necessary attentions to 15 cows be supposed to occupy two-thirds of the man's time, at 18*d.* a day. and the whole of the dairy-woman's time at 1*s.* per day, the annual expense of management will be £36 10 0

To this may be added 6*l.* for the purchase of salt, utensils, &c. } 6 0 0

42 10 0

The profit on 15 cows, as above 57 10 0

Which leaves the dairy-man a clear profit of 1*l.* per cow, to repay his extra care and attention, together with the interest of a capital of perhaps 100*l.*

Mr. Billet of Warmwell, seems to think it an oppressive custom in this county, to charge the dairy-men with the income-tax, as the whole of the tenant's duty is paid by the farmer, and whatever the dairy-man gains, seems to come out of the farmer's proper income. Yet, on the other hand, it may be urged, that those enormous farms, that have probably given birth to the custom of letting dairy cows, are too extensive to be managed in the most profitable manner by one person, and consequently the dairy-man's gain is not the farmer's loss.

The man who brings up his family with some degree of comfort, by hiring a dairy of 30 cows, would be a respectable and independent member of society on a grass farm that would only support half that number. In this case a few more buildings would be required, but not more than the additional rent would support; for it must be observed, that all the dairy-men who are employed at present have houses to live in, and other accommodation to enable them to carry on their business.

The quantity of ground required to support a dairy

cow is supposed to be three acres of grass, at about 30s. per acre, and straw for nine or ten weeks in winter, which is worth about 20s.

The expense attending such a portion of land as is sufficient to support a cow in grass and hay, through the year, except nine or ten weeks in winter, will be as below:

	£	s.	d.
Rent of three acres, at 30s. an acre	4	10	0
Poor's rates, highway duty, and taxes	1	0	0
Weeding, manuring, &c.	0	10	0
Hay-making, &c. one acre and a half	1	0	0
	£7	0	0

Which leaves the farmer a clear profit of about 20s. an acre; on the supposition that the sheep that are kept on the same land in winter, will afford a profit equal to the decline in value, and other risks which attend the dairy stock.

Diseases.—Mr. Stocker of Dallwood, cured a *way-bred*, or wen, under the belly of a Devonshire calf, by two dressings of oil of vitriol, which was rubbed into the cracks.

A new method of cutting bulls has been introduced, from Wales, by F. I. Brown, Esq. of Frampton, and successfully adopted by Mr. Groves of Abbotsbury and others.

The instrument which is made use of acts by continual pressure on the spermatic cords, &c., and the sensation and life of the parts are gradually destroyed. Mr. Groves observes, that when bulls are cut in the usual way they decline in flesh for a month after the operation, but the pressure of the *clams* seems to be scarcely regarded, and they

they continue to improve as if no operation had taken place. The printed directions on this subject are as follows : " Keep the skin quite smooth in the centre of the clams, with the stones pressed tight in the top of the purse (keeping the clams close to the stones), and one week after, the stones are to be cut off below the clams, which are to remain on one week after this last operation."

The *clams* are made of two pieces of wood 12 inches long and seven-eighths of an inch thick. They are rounded at the ends, and connected by iron joints at one end, and fastened at the other end by a screw, that works in a nut sunk into the wood ; the screw is square at the end, and is turned by a kind of bed-winch, that the end may not project and scratch the animal when in use. When the two sides are closed, there is an opening withinside of seven inches long, and about one-eighth of an inch wide, and the wood is smoothly rounded off.

The plan appears to be a very eligible one, and it is probable that rams, &c. might be thus castrated with more safety and ease than is the case in the usual mode.

Mr. Ilott of Milton Abbey, observes, " With respect to the comparative value of labour done by horses and oxen, I have no correct estimate, but I am of opinion, that upon all extensive arable farms, a certain proportion of ox-labour is very useful, and more particularly upon all heavy ploughing soils, as six oxen might be kept at less expense than four horses, and will do as much work at less risk, with respect to the improvement and value of the animal during four years of labour.

" Upon my farm, a heavy ploughing chalky and flinty loam, I work two teams of oxen and two of horses ; they are all in constant employ both in winter and summer. In the winter, I use six oxen in each plough, and four

horses. In the summer, generally four oxen or three horses to a plough, and each team ploughs the same proportion of ground in a given time. To each horse (except when green vetches, &c. are plentiful) I allow two bushels of oats and beans per week. To each ox, one bushel of bruised corn per week. Sometimes, in the winter, I procure a few grains to mix with the corn that is given to the oxen, but in every other respect, as to straw, chaff, &c., the horses and oxen fare exactly alike, both having as much as they require, and they are all soiled in the summer.

"My oxen are of the north of Devonshire breed, bought in at three years old, and worked to the age of seven or eight years. They are always kept in good condition, are very tractable at plough or cart, and occasion me no anxiety with respect to diseases, which, I am sorry to say, is not the case with respect to my horses, having had great losses of that kind. The grand objection to working oxen, is their want of expedition; but let them have solid and generous food, and the master will lose his prejudice. Another objection to the general use of ox-labour is, that many farmers thinking they have not sufficient pasture to feed them upon, during the period they may be kept for labour, and having no idea of soiling them on green food, and allowing them chaff and corn, they enter no farther into their merits as labouring animals, and give up all thoughts of keeping them. I must again repeat, that I think a proportion of ox-labour necessary upon all arable farms, and if there are not sufficient pastures for them to feed upon, let them be soiled, and fed in every respect in a bountiful and generous manner, and they will pay well for their keep. The landlords should erect upon all farms, proper conveniences for soiling and feeding them in well-sheltered fold-yards, &c."

SECT. II.—SHEEP.

THE county of Dorset seems to have been long in possession of the breed of sheep, which is remarkable for supplying the metropolis with house-lamb at a very early season.

They are thus described by Mr. Claridge: "I apprehend, that if the face and nose are white, and the claws and feet without any mixture of colour, the forehead woolly, and the face long and broad, the horn round and bold, and projecting rather forward, a broad shoulder, a straight back, broad loin, deep carcass, and short in the leg, it is near the true description of a Dorset sheep."

Mr. Parkinson characterises them as follows: "I look upon the Dorset ewe as the best horned ewe in the kingdom, those of Somerset excepted, and they are so near alike, that few people, unless the natives of the two counties, would know the difference. The ewes are much more complete in form than the wethers, or tups, and the best of the Dorset ewes are more correct in their shape than many of the improved breeds of sheep. Mr. Bridge says they have been much improved of late years; they used to be long legged, which is by no means the case at present. Their height is in very proper proportion to their length; they are straight in their carcass, sufficiently deep in the body, and the rump is much larger than in most sheep; round enough in their ribs, they walk well; straight on their legs; and their head stands up well; their neck is very proper, the scrag neither thin nor clumsy; set full in the shoulder, which gives flesh on the back, and is an indication of flesh in every part, so as when fat to have a proper proportion of lean with it; the ribs are not so high or round in the upper part as in some

some improved sheep, (which, when as high as promoted by Mr. Bakewell, proves a fault, and diminishes the weight); the breast is pointing forwards, the eye quick and lively, the face thin, and the mouth small; the horns are thin, and rather bending backwards; the leg is well let down towards the shank; the tail is of a proper substance, neither very small nor thick in the extreme, and is always left of its natural length; their wool is smooth on the outside, and is not *tag* or hair, and they have no more wool on their legs or face than there ought to be; and their perfections altogether add much to the credit of the breeders. Among their other perfections, they have preserved their milk, so as to make them good nurses, as no ewes make their lambs fatter, or more quickly than the Dorsets."—*MS.*

In the Isle of Portland, there is a very small breed of sheep, and there are a few of the same kind at Studland, but they are not kept generally, as might be inferred from Mr. Claridge's account, "in the neighbourhood of Weymouth, the Isle of Purbeck, and about Wareham and Poole."

They are said by many to be the true Dorsetshire breed; the farmers, and breeders of sheep in that island, contend that there is none of the true breed in the rest of the county, all the others having been crossed by the Somersets and other kinds of horned sheep; but be this as it may, they are very much improved either by keeping or breeding. The Dorset sheep, when compared with such as are kept at present in the Isle of Portland, will weigh three times as much; and it is not to be wondered at, as it may be observed that there are 3000 sheep kept on the Island, which contains but 2800 acres, of which 800 are waste, 400 arable, 250 meadow, which leaves but 1350 acres of pasture for sheep, and this is very poor land,
rented

rented at 7s. an acre. Thus it appears the land is stocked at the rate of two sheep and a quarter per acre, much of which has scarcely a blade of grass upon it. The Isle of Portland sheep are horned, remarkably small, and rather short in the carcass, when fat not weighing more than 10lbs. a quarter; their wool weighs from one pound and a half to two pounds a fleece, and the price of the wool in 1806 was 50s. per wey of 30lbs., but this year (1807) only 46s. a wey. Several of these sheep have black noses, and are rather black intermixed with white near the hoof, in which case they are said to be *brooked*. The Somerset sheep are remarkably white in the face and the legs, and it is very seldom that a Dorset sheep is to be seen with the least inclination to any black hair on their face and legs, from which it seems probable they have been mixed. It is very well authenticated, that the Portland sheep have had no cross of blood, and it is said to be as fine flavoured mutton as any in the kingdom.

Mr. Lowman of Portland, observes, it is the practice there to fold these dwarfish animals, from Candlemas till Martintide, putting them in late at night, and letting them out early in the morning. The mutton is deemed the best in England, and the wool as good as the South-down kind. Some of them have been purchased by sheep-breeders, with a view to obtain a cross between these and the Merinos. Both ewes and wethers are kept, and generally till they are five years old; sometimes they remain till a greater age, but it is not thought a profitable method. Such as are fatted, are put into a common at the northern part of the island, which is pretty good land, and remain there from the 12th day of August to the 5th of November; on which day Portland sheep-fair is held. All the sheep of the island are kept pretty generally

generally on the commons from November the 21st to Candlemas.

The Portland mutton is sold by the quarter at 10s. 6d. in general. It is never weighed, but would come to 1s. a pound when common mutton is only 7d. ; it seldom weighs more than 10lbs. a quarter.

In this extensive flock district, it may be expected that the sheep have been variously crossed in former times, and the alterations have probably disguised the original breed in such a manner, as to render it uncertain from what source the present race is derived. The Portland kind may be the original stock of the county ; in which case the present stock is wonderfully improved in size : and Mr Billingsley, in the Somersetshire Report, says the sheep in the south-east of Somerset are an improved sort of the Dorset. After all, perhaps it may be a fact, that enlarging the size of sheep that are not already below the medium, may not eventually be found a real improvement. It seems to be the proper province of mankind, to attempt to remove defects and supply obvious deficiencies ; and whenever they attempt improvements in the size, wool, hardiness, aptitude to fatten, quantity of milk, &c. beyond what Nature intended, if they gain their point, and thus adapt the animals more perfectly to some local circumstances, is it not always attended with a correspondent loss of some other quality of equal value ?

These remarks are not intended to check that ardour of improving animals, &c. which at present leads mankind in twenty different and even opposite directions, but merely to suggest a theoretical hint, that improvements beyond a certain point have always proved either local or else imaginary. Whoever attempts to go beyond this point, is merely taking money out of one pocket;
and

and putting it into another. A sheep will never degenerate down to the size of a rabbit, under the most unfavourable circumstances; and the art of man can never improve them to the size of an ox; or even if this were practicable, still the reason afore mentioned would render it impossible for the improver to gain any remuneration for his trouble, unless indeed, it were gained by making use of the curiosity and credulity of his fellow creatures.

The Dishley breed of sheep has been tried in Dorset, by Mr. Bridge of Winford. In 1793, Mr. Claridge observed: "He is aiming to produce lambs from them as early as the home breed, and is sanguine in his belief that the lambs will be as delicate in the grain of the meat, as those that are bred from the true Dorsets. He is also of opinion that they are full as hardy, and will be supported with less fodder, and that both the wedders and ewes of this breed will fatten faster than the old Dorsets." At a later period than Mr. Claridge's Survey, Mr. Hott of Milton Abbey imported some Dishley sheep, and Bakewellian ideas from Oxfordshire; but at the present time it seems to be an established fact, that these sheep, which are well enough adapted to live an idle, luxurious and short life in the rich pastures of Leicestershire, will not thrive on the scanty food and bleak exposures of the Dorsetshire downs, where, to make the matter still worse, folding from one end of the year to the other is considered to be the *sine quâ non* of good husbandry.

Under the above-mentioned circumstances, the South-downs are well known to be modern and successful rivals of the New Leicester breed. At the present time they are making much progress in this county, and their most enthusiastic admirers believe they will shortly annihilate the peculiar stock of this part of England.

Mr.

Mr. Bridge of Winford, who has been very experimental, has a considerable flock both of Dorsets and South-downs, and he scarcely knows which kind to prefer. The Dorsets seem the best on good land, as they become of a larger size, but the South-downs are thought to endure folding the best, but not much.

The South-downs seem to be a quieter kind of sheep than the Dorsets, when put to scanty food; and they appear to prosper the most when kept principally on hay, with a little grass in winter.

With respect to wool, Mr. Bridge's Dorsets produce on the average $3\frac{1}{2}$ lb. at 20d. per pound, and the South-downs $2\frac{1}{2}$ lb. at 3s. per pound.

Very good Dorset ewes four years and a half of age, are sold, about Michaelmas, at Weyhill fair, at 42s. each, but some are as low as 30s. each.

At the same fair good South-downs, under the same circumstances, are sold at about a guinea and a half each.

South-down wethers at three years and a half old, produce 50s. each, and the Dorset wethers produce about the same price; but rams of the former breed show the greatest aptitude to fatten.

Both Mr. Bridge, and Mr. Goodenough of Frampton, seem to entertain an opinion in favour of crossing, or rather a dislike to the system of breeding *in and in*, for they affirm that sheep will *degenerate* if the blood is not altered by means of rams brought from a distance, though these rams exhibit no apparent superiority. This opinion is curious, as it bears a strict analogy with the received opinion in favour of a similar change in seed corn. But the benefits thus derived have been deemed questionable, and if real, they ought in all probability to be ascribed to the differences of soil and climate. If this opinion has a better foundation than mere fancy, is it not probable

bable that the alteration in the blood, is the result of habits of hardiness, &c. acquired in different climates and situations, rather than in the single circumstance of the rams coming from a distance? And is it not probable that injury may be thus sustained, if the sheep be purchased and brought from a warmer climate?

Mr. Richards of Fleet, keeps the first cross between the Dorsets and South-downs.

Mr. Stent of Morden, is rather partial to the South-downs, but he has only Dorsets at present.

Mr. Wickins of Mapperton, thinks five South-downs might be kept on the same food as four Dorsets, but their size differs nearly in the same proportion. He once knew an experiment tried in a gentleman's park, between the Dorset, South-down, and Wiltshire breeds. They all run together, and after a time they were examined, when the Wiltshires proved very poor, the Dorsets in good store order, and the South-downs almost fat.

At Shaftesbury, South-downs are very prevalent, but Mr. Gillingham thinks the best Dorsets are a very good kind of sheep. He believes the South-downs are less liable to disorders than the other kind, and will subsist on poorer ground. They are sent to Wilton, and to Barford fair (Aug. 12.), and sold at from 30*s.* to 40*s.* a piece, before they are put to the ram. Their wool weighs from 2 lb. to 4½ lb. a fleece, and scarcely amounts to 3 lb. on the average.

Mr. Spear of Monkton, keeps South-downs, which produce about 3 lb. of wool each. Good ewes of this kind make 35*s.* each, but some not more than 23*s.* Their lambs are not so early, neither will the ewes keep them so well as the Dorsets, but they fetch a superior price, as far as 6*s.* or 7*s.* a head.

The

The South-down four-teeth sheep graze much sooner than the Dorset kind, and are worth more by 30 per cent.; the lambs produce 1½ lb. of wool each, at 18d. or 20d. a lb. and three South-downs eat no more than two Dorsets.

The Dean of Salisbury keeps South-downs at St. Giles's; their wool is very fine, and weighs only 2 lb. a fleece. The bailiff believes their wool is not inferior to much of the Merino kind.

Mr. Hentic's bailiff, at Kingston Hall farm, prefers the South-downs. He thinks three South-downs may be kept instead of two Dorsets; but if all circumstances are alike, the latter will weigh 10 stone each (of 8 lb.) while the former will weigh only 8½ stones. The Downs produce 3 lb. of wool each, at 3s. a pound. The Dorsets, when put into a field, will often run all over it without touching a blade of grass; but the South-downs will feed quietly, where the Dorsets will not look at the ground.

Mr. Shaw of Spettisbury, has a good flock of South-downs; he sells the old ewes at 40s. to 45s. each, and the wool he thinks is worth 3s. 6d. a pound. The wethers fat much more freely than is the case with the Dorset kind; good ewe lambs, he says, are now worth 50s. a piece.

Mr. Clapcot of Whitechurch, keeps both Downs and Dorsets, and has also a few of the Spanish kind.

Mr. Conway of Netherbury, believes the Dorset sheep are likely to be quite supplanted by the South-downs, which, he says, may be made to produce lambs as early as St. Michael, if kept in warm bottoms. He has sold Down lambs in September at 25s. each, and fat ewes at 37s. each, two years successively. The fleeces weigh 3 lb. on the average, but the wool is not quite of the finest quality.

Mr. Alner of Piddletown, prefers the South-downs,

as he can keep more, and they will bear folding better, though they will not produce lambs so early as the Dorsets.

Mr. Banger of Waterson, has an excellent South-down flock; and Mr. Balson of Athelampton, is coming into that breed, but principally on account of the *goggles*, which disease is deemed hereditary, and has been much in his flock.

The sheep at Wareham, are mostly South-down, but not many are kept there.

Mr. Goodenough of Frampton, keeps an excellent South-down flock. He believes they bear folding better than the Dorsets, fatten quicker, and consume much less food; their wool is superior in quality, and not much inferior in quantity. From 11 to 13 fleeces make a wey of 30 lbs., which was sold in 1807 at 2s. 9d., but in 1810 at 3s. per lb.

This gentleman, and several others in the county, are so desirous to improve their Down flock, that they buy in ewe lambs of half a year old at 50s. each. There are others who have good flocks of the Dorset kind, and who seem willing to concede the palm of merit to the South-downs; but believe their present price is not warranted by their real superiority.

Mr. Goodenough sold 250 ewes at 34s. and 250 wethers at 40s. each, out of a flock of 2500 South-downs.

On one occasion 100 ewes were sold at 35*s.* a-piece, their lambs were sold at 30*s.* a-head. The wool of the ewes produced 10*s.* a-head, and the whole 100 were alive a year after, to sell in September; but the average loss is thought to be five per cent. per annum.

The Merino sheep have made some progress in this county: — Farquharson, Esq. keeps pure Merinos,
DORSET.] dd and

and the first and second cross with the South-downs, about 400 in all, at Tarrant Gunville. They bear the fold as well, if not better than the South-downs, the wethers are often worth more than Downs of the same age. Two-year-old rams of the first cross, have been sold at 10 guineas each.

Some of the cross breeds obtained from a polled Spanish ram, are without horns; others are horned; and rather brown-faced, from a ram of that description. The apparent deformity of this breed, which is so much spoken of, consists much in their throatiness, and the abundance of wool on the cheeks and forehead, and low down the legs, but all of them are not equally uncouth in their appearance. This breed is generally flat-sided, and uneven along the back; but these defects are almost equally prominent in some English sheep, and may certainly be removed in some measure; but it must never be hoped that every good quality can exist in the same animal, in an eminent degree.

Mr. Farquharson has several ewes of the pure Spanish kind, and most of them had took ram on the 4th of August, as I was informed by the shepherd, who added, that the lambs are often very hairy when first dropped, but they are remarkably active and healthy.

Mr. Goodenough has sent some ewes to Mr. Farquharson's Merino rams; but he says, as the shape of the ram is evidently bad, it is impossible at present to foresee how far the result may prove beneficial.

Mr. Bowker of Charborough, keeps about 900 Anglo-Merinos, which are mostly the first cross between the Spanish and the South-down breeds. He seems to entertain a high opinion of the benefit to be derived from this breed, by improving the wool without deteriorating the carcass; and perhaps it may be allowed, that the
first

first cross does not exhibit the Spanish deformity in any remarkable degree.

The Reverend Mr. Dampier observes in a letter, that he has this year, (1810) crossed his Dorsetshire ewes with Anglo-Merino rams, and the produce is beautiful, and superior to any he ever bred. He adds, "I have likewise a flock of very fine pure Merinos of the Paular and Negretti breed, imported from Spain in November last. Their lambs, which already consist of 26, are very kindly and promise well. The wool of the Paular flock is uncommonly fine." (This letter was written in January, 1811).

Mr. Henning of Weymouth, has crossed his Dorset flock once with the Merinos, and now selects the best to maintain the breed, as he is convinced that the Spanish and all other breeds naturally degenerate, till they become suitable to the soil, climate, &c. and produce wool similar to the native stock.

Mr. Shaw of Spettisbury, had a Spanish ram, but the shape of his sheep was so much injured by the Merino cross, that he thought proper to discontinue it.

General Mitchell has a very fine-woolled ram at Dewlish, which is supposed to be a cross between the Merino and Dorset breeds: the wool is said to have been sold for 4s. a pound in 1809.

Mr. Clapcot of Whitechurch, has a few Spanish sheep, which produce from $4\frac{1}{2}$ to $5\frac{1}{2}$ lbs. of wool.

It is the opinion of Mr. Arthur Young, that every district should be made to speak for itself as much as possible: on this principle, some notes are inserted, which explain various particulars that respect the value, management, &c. of the Dorset sheep, though this plan will render some little repetition unavoidable.

Mr. Bridge of Winford, says the sheep are kept principally

pally on turnips in winter, but many send their ~~shiver~~ lambs to the Vale of Backmoor, where they are kept in the cow-pastures for half a year, at 8s. a head.

The ewes and lambs run over the ewe-leaze, &c. and have hay in the evening, and sometimes in the morning, when the weather is bad. The hay is put into racks, which are set on the poorest part of the ground. Turnips are also frequently given them in the day-time. Mr. Bridge folds his -fatting sheep on the green land in winter, and gives them one pound and a half of oil-cake each, per day, with hay, &c.

He says the Merinos and South-down lambs bring so little wool with them, that they should always be in a yard at lambing time: but this precaution is not so necessary with respect to the Dorset lambs, as they are dropped with a much warmer cover of wool. Ewe-leaze rented at 20s. an acre, should keep four sheep in the summer; and in the winter, one couple to the acre without hay, but they should always have an allowance of that article.

At Bexington, there are some poor rough furzy downs, which have been made to support two South-down sheep to the acre, but they appear to have been stocked too hard.

Mr. Pittfield of Symondsbury, says there are but few places in the county where sheep are much liable to rot. He keeps 500 ewes, and sells about 150 yearly at Weyhill.

They produce from 35s. to 40s. at $4\frac{1}{2}$ years of age, which is the regular age at which ewes are sold, all over the county.

The pur lambs are sold in September and October, at 18s. to 20s. a-piece, and go in general to the county of Somerset.

At

At Bettiscombe, and the vicinity, Mr. Groves remarks, there are many Somerset sheep as well as Dorset. The Somersets are a larger kind of sheep, and do not succeed so well as the Dorsets in hilly and exposed situations.

According to Mr. Wickins and some others, the ewes are deemed to pay a guinea per head, per annum, reckoning nothing for the young sheep. He says the lambs have sometimes returned so poor from their agistments in the Vale of Blackmoor, as to have given rise to actions at law.

Mr. Wood thinks the food of store sheep that are constantly folded should be valued at 5*d.* per head, per week; and a penny per week more for couples, or fatting sheep.

Mr. Sampson of Kingston Russel, keeps mostly Dorset ewes, and they are driven a mile and a half to fold; but he does not fold the lambs, as he believes it makes them scour; as is also the case if they live too well, on grass that has grown rapidly in the autumn. Good farmers, he believes, expect to make more of their flock in a year than amounts to 1*l.* a-head on the ewes.

At a sale near Tarrant Crawford, the old ewes produced about 95*s.* a-head, and the lambs 16*s.* or 17*s.* in the year 1810.

Mr. Henning of Dorchester, believes the downs are often made to carry two sheep per acre, in summer; what are called ewe-leazes generally support three sheep per acre.

Mr. Bridge of Kimmeridge, sends many tegs to turnips in Hampshire, and other places, and the tegs consume most of the turnips in the county of Dorset,

Mr. Groves of Abbotsbury, supposes 150 ewes are sold off every year out of a flock of 500. The lambs are always shorn at half a year old, and produce a pound and

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a half

a half of wool, worth 18*d.* a pound. The sheep's wool is worth 19*d.* a pound, and the average produce is nearly four pounds a fleece. The oldest lambs are weaned at the end of April. Wethers are fatted at three or four years old, and are sent towards Bath or Bristol. They are worth 30*s.* when the ewes are worth 35*s.*, which is about the average price.

The lambs breed regularly at two years old, and the price of rams is from four to ten guineas a piece.

The following calculation of the produce of Dorset sheep, is by Mr. Legg of Mapperton, near Beaminster.

	£	s.	d.
Flock, 450 ewes; sold annually 150 full mouthed, at 35 <i>s.</i> each	262	10	0
Pur lambs, 180 sold, at 23 <i>s.</i> each.....	207	0	0
Ditto, 25 inferior ones, at 15 <i>s.</i>	18	15	0
Wool, 11½ packs (3 of which are lamb's wool), at 19 <i>s.</i> a pack	218	10	0
	£706 15 0		

Which is more than 30*s.* per ewe.

The relative quantities of the different kinds and ages which constitute the Dorset flock, where wethers are kept (which is seldom the case) may be seen by the following statement, of the whole flock kept on a farm at Cranborne, as advertised to be sold:

Old ewes,	97	.....	8 rams.
Six-teeth ditto,	114	.....	105 six-teeth wethers.
Four-teeth ditto,	108	.....	95 four-teeth ditto.
Two-teeth ditto,	137	.....	97 two-teeth ditto.
Chilver lambs,	124	.....	130 pur lambs.
Total,	580	.....	435

In such a flock as this, one-third of the ewes of the three elder classes will be sold, the deficiency of the old ewes being made up by culling from the younger part of the flock. Now if a calculation be founded on this supposition, and Mr. Legg's data be assumed as a basis in all respects, it will appear that 106 ewes sold at Michaelmas will produce 185*l.* 10*s.* Therefore,

As £262.5 : £706.75 :: £185.5 : £499.43,

which is the whole produce of the ewe-flock at Cranborne, per annum. But in this calculation the sale-price of 124 pur lambs is included.

In this flock, 456 sheep have been kept the whole year, and their keeping at 4*d.* per week, or 17*s.* 4*d.* per annum, amounts to £395 2 0

The chilver and pur lambs, at 2*d.* per head }
for about 40 weeks, will cost } 82 13 0

Which leaves for shepherding, hurdles, &c. }
only } 21 13 0

£499 8 0

A part of the profits of the Dorset flocks is supposed to arise from their being employed four or five years a piece to bring manure from the downs to the arable land; but that part of their profit which appears in a tangible shape, in the above calculation, is not likely to enrich the farmers very rapidly.

Such of the downs as will keep two sheep per acre, for 20 weeks, appear to produce only 14*s.* per annum in money, and perhaps the value of the sheep-folding on the arable land may be 5*s.* more.

Folding.—Mr. Pittfield of Symondsburry, thinks folding of sheep is indispensable, as without this they leave

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their

their manure much in heaps, and they appear to select both the highest and the lowest parts of the fields.

Mr. Wickins of Mapperton, thinks the folding of sheep after the rate of 1300 per acre per night, is worth from 25s. to 40s. according to the keep.

If the sheep are allowed half a pound a day of oil-cake each, when they are folded on green-land, it makes the grass flourish in a remarkable manner.

Mr. Henning of Weymouth, folds his sheep constantly in the summer; but he allows that the downs are injured by this practice.

Mr. Gillingham of Shaftesbury, folds all his sheep except the lambs, and those that are fatting. They are put into the fold at sun-set, and taken out at eight or nine o'clock in the morning. He does not wish them to begin feeding before the dew is off, as that is deemed to be one cause of the red water.

Mr. Portman folds much of his wheat land previous to the wheat being sown. Four hundred sheep are put into a fold composed of eight dozen of hurdles, each of which is more than four feet and a half long. An acre is folded in about five nights, and the value of one night's folding is estimated at half a guinea.

Mr. Henning of Dorchester, observes, it is not much considered what may be the value of keeping a folding sheep by the week, because their manure must be had at any rate.

Mr. Willis of Corfe Castle, believes the fold proves of most utility, when it is done near the time of wheat sowing.

Mr. Bridge of Kimmeridge, folds 1000 sheep, in a pen consisting of eleven dozen and a half of hurdles (which seems to enclose nearly half an acre), and he often folds the land four or five times over.

Mr.

Mr. Goodenough of Frampton, folds the grass-seeds in the autumn, after the wheat land is gone over; and he finds this practice very useful in establishing the young plants.

Hurdles.—"The mode of penning sheep varies, in some parts of the county, as well as the size of the hurdle, but in general the hurdles are four feet six inches long, and three feet six inches high, made chiefly of hazel, with ten upright sticks; and fifteen dozen of them with a like number of stakes and wriths to confine them together, will enclose a statute acre of ground, and will contain twelve or thirteen hundred sheep very commodiously. The hurdles are moved every morning, consequently the same number of sheep will manure an acre of land daily. One penning is never estimated to be worth less than half a guinea or twelve shillings per acre. The hurdles, including stakes, are worth seven shillings and sixpence per dozen."—*Claridge.*

These hurdles make a kind of moveable hedges; they are called *flake-hurdles* in some places, but I believe they have not this distinguishing name in Dorset, where no other kind of hurdle is in use. Great quantities of them are made at Tarrant Gunville. The ten stakes, round about which the hazel branches are plaited, are fixed in augur holes in a piece of timber, which is elevated two or three feet from the ground, during the operation of making these hurdles. Their price at this time is 8s. or 9s. a dozen, and they do not last, in general, more than two or three years.

There is probably no part of England where the practice of sheep-folding is more admired, or more earnestly pursued, than in the county of Dorset. There are but few farmers in the upland districts who keep wethers, but
such

such as do, fold them continually either on the arable or green land, from one end of the year to the other. The ewes are mostly folded from Lady-day till they are ready to drop their lambs, which is about Christmas, after which time they are thought to deserve a more tender and careful treatment. But the ewes intended for sale in the autumn, are frequently indulged with a respite from the labours of the fold, during the preceding spring and summer, and are also allowed the best keep, that they may improve in flesh, and bring their lambs earlier than the rest of the flock. Folding is deemed injurious to young lambs (as observed by Mr. Sampson), and when sheep are penned too closely together, it heats them; and it seems to be the opinion of Mr. Bridge of Winford, and others, that the *scab* is often produced in this manner. There is no doubt that sheep, when left at liberty, will disperse their manure very irregularly in such a hilly country as Dorset; and some of the arable land possesses so little fertility, that perhaps it would scarcely be worth cultivation without the aid of the sheep-fold from the downs; at the same time it appears to me, that this system is carried to excess. The custom of putting the sheep into a fold, where the land is tolerably level, and where the manure is wanted on the very spot that produces the grass on which the sheep are depastured, appears to be a very useless practice, calculated to destroy a great many hurdles, and sometimes much grass, to make additional labour for the shepherd, to harass the sheep, and cause distempers amongst them, to hinder their feeding when their appetite incites them to it, to prevent their food from being converted to nutriment, and to expose them in winter to all the severities of the season.

Finally: perhaps the system of folding makes it necessary

necessary for the farmers to keep the sheep a year longer, before they attain their usual size and value, than would otherwise be the case.

The general Management of Sheep—In this county is very uniform. The lambs which are bred for the regular supply of the flock, are dropped at Christmas, or soon afterwards, and the couples are kept in the best ewe-leazes, &c. on grass, hay, and turnips if necessary, and such as have watered meadows, depasture their sheep there, on the early grass, till Old May-day, when the lambs are weaned, and the sheep go to fold; but sometimes the two latter circumstances take place as early as Lady-day. The ewes are folded constantly, and kept on the downs, on artificial grasses, and other pastures, till near the ensuing Christmas, at which time they have another crop of lambs, the rams having been put to the flock about the end of July.

The lambs are generally shorn about Midsummer, at the same time as the rest of the flock, and between this time and Michaelmas the *pur lambs* are sold to dealers, &c. from Somersetshire, and other districts, where breeding flocks are not so generally kept as in the upland parts of Dorset. In the summer and autumn, the *chilver lambs* are frequently folded, being fed on grass, rape, turnips, and hay, from the latter end of summer till the following spring. They take the name of ewe-hogs sometime in the autumn, at which time many of them are sent to the Vale of Blackmoor to be wintered, and the rest of them consume the greater part of the turnips in the county, with a portion of hay, made from artificial grasses, and stacked in the middle of the turnip fallows for that purpose.

In the next summer they are put to the ram, and they
produce

produce a crop of lambs at the age of two, three, and four years successively, under a similar system of management as before described, and are called by the name of two-toothed, four-toothed, and six-toothed ewes.

When they enter on their fifth year, the lambs are weaned by the end of April, and the ewes are depastured on water-meadows and the best ewe-leazes, and folding is omitted, to induce them to take the ram in May and June, and get them in condition for sale at the ensuing Michaelmas; at which time they are almost invariably sold at Weyhill in Hampshire. It is a general custom in this county, to colour the old ewes all over with reddle, which is mixed with water in a tub and put on with a mop; and no other reason is assigned for this custom, than to distinguish them from the Somerset sheep, which are brought to the same fair. It is a general plan, to endeavour to procure the lambs to fall as soon as is convenient after the dealers and graziers who purchased them at Weyhill have disposed of them in the neighbourhood of the metropolis, which they supply with the early house-lamb,—a luxury, which sometimes produces in a few weeks more money to the grazier than the ewe cost, in repayment for a considerable quantity of care and expense.

Mr. Claridge represented the early lambing season to be in the middle of September; but this is not the case now, at least generally.

Many twins are produced, but in general the farmers prefer to have no more lambs than ewes; the supernumerary ones are therefore kept a few weeks, and then killed, or given away. Indeed the custom of keeping ewes till they are nearly five years old, renders it unnecessary to be very careful in the preservation of the lambs. They produce lambs in three successive years before they
are

are sold; and though the pure lambs are constantly disposed of, yet every hundred ewes appear thus to leave a hundred and fifty lambs to supply their place.

This surplus is, of course, much diminished by accidents and diseases, and the number of sheep in the flock is kept to its usual standard by selections of coarse-woolled, or ill-shaped ewes, from the younger classes; to be sold with those that have arrived to the regular age of four years and three quarters.

Wether Flocks—Are kept by a few farmers in the upland district, but in the Vale of Blackmoor they are more common; they are kept for the purpose of folding till three or four years old, and are then fattened by the Vale graziers, or are sent to the neighbourhood of Bath, Bristol, &c. At Sturminster, the average price of mutton is 7d. and of lamb 8d. per pound: the keep of ewes and lambs has been charged as high as a shilling a week, and fattening sheep as much, or more.

The common weight of fat wethers is 10 or 11 stones, of eight pounds each.

The Method of Marking Sheep—As practised at Crawford, and probably in other places, is as follows:

The lambs are marked only with the initial of the owner's surname with a pitched brand. The two-teethed sheep have two letters on the *near shoulder*, the four-teethed sheep have the same marks on the middle of the *near side*, and the six-teeths have a similar brand on the *off-side*.

The average Quantity of Wool—Is Portlands 1½ to 2 lbs. a fleece; South-downs 2½ lbs.; Dorsets 3½ lbs.; New Leicesters 5 lbs.; Oxford sheep 6 lbs.

Expense

Expenses of Food, &c.—The hazard of life in the ewe, the keeping of a ram, and other attendant expenses, make it necessary to consider the prime cost of a lamb, as soon as it is dropped, at least

£0	5	0
Milk, grass, &c. three quarters of a year, } at 2d. a week	0	6 6
Grass for the winter half year in Black- moor, &c.	0	8 0
Grass, hay, turnips, &c. for three years and a half, at 4d. per week, up to the age of four years and three quarters	3	0 8
Attendance, shearing, hurdles, &c. during four years and three quarters	0	7 0
Total expense of one ewe	£4	7 2

To repay this expense, there is

Lamb's wool, 1 lb. at 18d. a pound	£0	1 6
Four years' wool, 3½ lbs. per annum, at } 1s. 8d. per pound	1	1 8
Value of the lambs when dropped	0	15 0
Price of the old ewe, at four years and three quarters old	2	0 0
Total profit	£3	18 2

From this calculation, though by no means a satisfactory one, it appears that the folding flocks of this county pay less than 4d. a head per week, for the grass, hay, and turnips, they consume: the real value of the fold there is no means of ascertaining; it is undoubtedly very beneficial to the arable land, but it has reduced the downs to a state of poverty.

The contest between the Dorset and South-down breeders

breeders is at present very great. The latter insist much on the superior value of the wool, which is thus calculated:

South-downs, 2½ lb. per fleece, at 3s. per lb.	£0	8	3
Dorsets, 3½ lb. per fleece, at 1s. 8d. per lb.	0	5	5

In favour of the South-downs £0 2 10

But allowing an acre of ewe-leaze to carry four South-downs, and only three Dorsets, the produce of wool per acre will stand thus:

4 South-downs	£1	13	0
3 Dorsets	0	16	3

In favour of the South-downs per acre £0 16 9

Though this superiority is great, it is not quite so much as is claimed by the South-down party, yet perhaps it is more than their opponents will allow to be real, and permanent.

As to the circumstances of the South-downs consuming less food, and enduring the fatigue of folding better than the Dorset kind of sheep, they are apparently real, and yet not a little exaggerated by their sanguine advocates. Small animals have ever been deemed to be the best adapted to short pastures, in hilly and exposed situations; the Downs are therefore better than the Dorsets, but this only shows, that the latter have been *improved in size*, till their value has been really diminished by that means. A few retrograde steps would probably bring both these breeds into *equilibrio* in these respects and would perhaps enable the Dorsets to rival their opponents in that aptitude to fatten which is an acknowledged point of superiority possessed by the South-downs.

On the other hand, the Dorset sheep possess the peculiar

lar merit of bringing lambs at a very early season, and yielding a sufficient quantity of milk to support them.

Some of the South-down breeders have also endeavoured to procure early lambs, and thus rival the Dorsets in that point also; but the wool of the South-down lambs is deficient at the time of yearning, and they prove too tender to endure the severities of winter.

It is certain that many lambs have been obtained from South-down ewes at a very early season, by the use of rich feeding, &c. and probably the same result might follow from similar trials with any other breed, but it does not appear that any useful result would flow from such experiments. The demand for early house-lamb is perhaps, at present, not sufficient to afford an adequate profit to the advocates of the Dorset sheep, yet in a few years the extension of the Down breed may materially alter the case.

Distempers.—Mr. Groves of Luke farm, Abbotsbury, says it is common for sheep to take the rot where there is only a small spring in a grass-field. The flat animals that are found in the livers of rotten sheep are called *plaice*, from their resemblance to the fish of that name.

The *goggles* have been very fatal to the sheep in this county, but it is believed this disorder is not so prevalent as was the case some years ago.—Mr. Balson of Athelhampton, has suffered much in his Dorset flock by this malady, and is now exchanging them for South-downs, principally for that reason. The disorder is believed to be infectious or hereditary, and a medical gentleman attempted in vain to discover the cause. The sheep, when afflicted with this disease, rub themselves very much, and reel about as if intoxicated. No cure has been discovered for this singular malady, except changing the flock may be deemed a remedy.

Mr.

Mr. Bolton says giddiness in sheep has been frequently cured by taking out the bladder which presses on the brain near the root of the horns.

Mr. Gillingham of Shaftesbury, believes sheep are peculiarly liable to be hoven or swelled, when they are feeding on rape, or turnips, while the wind is in the easterly points.

The *bisk*, or tough, with which young lambs are sometimes affected, has been successfully treated by Mr. Portman, at Bryanstone, by giving them bacon chopped very small, and mixed with a spoonful of tar.

At Kimmeridge, the sheep are so liable to scour, that Mr. Bridge has lost as many as composes the whole flock, in the course of seven years. This disease frequently originates in the sudden change from a short allowance of dry food to such as is of a watery quality, and more plentiful. Mr. Spear, and several other farmers, believe an allowance of hay with turnips, is the most effectual means of preventing this malady.

Mr. Bridge of Winford, believes the *goggles* is an hereditary disorder, but it is not very prevalent at this time. He cures the *shab* or *gund*, with tobacco water and mercurial ointment.

Mr. Claridge thinks the spinal marrow is diseased in sheep affected with the goggles, and suggests it as the opinion of some old-fashioned farmers, that no such disease existed prior to the introduction of the breed from other counties.

Rotten sheep are said to be *coathed* in Dorsetshire, and no remedy is known for this disorder; it may however be prevented, by never permitting the sheep to feed during the summer or autumn, on land that has been flooded after the month of May.

Sheep Cots, with wheels to move them from place to place, have been tried by Mr. Bridge of Winford, but he found them of very little use. He says the sheep make very dirty work, by running in and out in a hurrying manner.

Sheep-Washing.—This necessary operation is performed in some parts of the county by *women*, who stand in the water, and hold the sheep under spouts that convey the stream upon them, in the same manner as is generally done by men in other parts of the kingdom; but of late years a new and easy method has been adopted at Frampton, Abbotsbury, and many other places. A pit is made in any convenient part of a stream of water, capable of containing about a score of sheep, the sides of the pit are walled, and there are proper conveniences for letting in fresh water, and the sheep are merely put into the pit, and pushed about from side to side, with crooks, poles, &c. for two or three minutes. Mr. Goodenough, Mr. Groves, and other respectable farmers who have tried this plan, have no hesitation in saying, that the sheep are thus made as clean as by the old tedious and disagreeable method, and with a great deal more expedition.

SECT. III.—HORSES.

THERE appears but little emulation among the farmers in the breed of their horses, which, though not ill shaped for the purpose of labour, have rather a mean appearance, and are of all colours that are common to horses. They are from 15 hands to 15 $\frac{1}{4}$, and but few reach the height of 16 hands. They are short-legged, and have good hoofs,
and

and good bony legs; rather lengthy in the carcass, but not in the extreme; strong in the hind-quarters, and broad in the breast; their shoulders do not fall backward, but stand upright, and a cart-horse is better to be so made.—The collar fits in a more proper manner for work, and is not so liable to choak in going up the steep hills of this country. Their neck is rather short and low, the head rather large; they have not a smart look, but their eyes are rather dull. Now this is the description of a mean unsaleable horse, but which is nevertheless not ill adapted for labour; many experienced waggōners, and drivers of teams observe, that a smart quick look in a horse denotes a hasty passionate temper, while there is a degree of coolness required in cart-horses, and high spirit is considered rather as a fault than a perfection. For sale he must be allowed to be the better, but the number of horses that are sold in or out of the county is small, and there is a more secure profit arises from breeding cows or sheep; besides, land ought to be at a low value to breed any sort of horse, except the dray-horse, and there is no land in the county good enough to breed them.

Breeding of dray-horses has been tried in the counties near London, but they could never get them to come to a proper size; they kept getting smaller and smaller. There are not any stallions kept in high style for the use of covering, as in some counties.

The work performed by each horse in a year, is the tillage of from 12 to 30 acres of arable land, but most generally from 16 to 19 acres. In some instances, when land is broken up from clover ley in summer, eight horses in two ploughs have only ploughed half an acre a day.

Price of Food.—Hay made of clover, sainfoin, or grass,

is 4*l.* or 5*l.*; water-meadow hay, for soldiers' horses, about 3*l.* 10*s.* or 4*l.* 10*s.* a ton of the best kind; straw, 40*s.* a ton to the barracks, but for farmers' use 20*s.* or 30*s.* a ton; oats, 40*s.* to 60*s.* a quarter; beans, 60*s.* to 70*s.* a quarter; tares for soiling horses, 3*l.* or 4*l.* an acre.

Expense of Keeping.—Mr. Bridge of Winford, observes, that if a horse be kept on straw, or straw cut into chaff, he will require one peck of oats, and a quarter of a peck of beans per day, which in 1810 came to 11*s.* 11½*d.* per week, and the oats to 8*s.* 9*d.*; and he thinks it very impolitic to keep a working horse sparingly.

*The food of horses in winter is principally hay and corn; and in summer, hay, corn, tares, and hop, and ray-grass: there are not many beans given to farmers' horses, as few are grown in the county. Shoeing is 1*s.* 9*d.* per set of shoes. Horse-harness is found and kept in repair at 15*s.* each horse per annum; the farmer purchasing the first stock.*

Decline in Value.—"Mr. Bridge observes, that horses will improve, and pay money for three years, and then maintain their price for two or three years after; but in the next three years they will lose half their value, and in five years more three-fourths of their original value will be lost."

Allowance of Corn, &c.—At Powerstock, one peck per day in winter.

Wootton Fitzpaine—one peck of corn with chaff.

Charborough—Mr. Bowker allows 24*lb.* of oats to each horse per day.

Berwick-

Berwick-farm—two bushels of oats per week.

Osmington—Mr. Wood allows two bushels of oats per week to each horse; with straw and chaff, and one bushel and a half with hay. Some small farmers in the vicinity, that have but little work for their teams, give them no corn.

Frampton—Mr. Goodenough allows two bushels of oats and a peck of beans, or old pease in winter, but in summer only one bushel of oats with grass, &c.

The time of work is eight hours or more at Frampton, but probably not so much in general.

At Bexington, the horses plough about an acre a day, per team, in two journies;—they work from six to eleven o'clock, and afterwards from two to five in the evening.

Mr. Bowker of Charborough, ploughs with a pair of horses, about an acre a day, employing them from six to twelve, and again from two till six o'clock; but he seems to almost double as much corn as the farmers in general.

Ploughing with Two Horses a-breast—Is frequently practised on the lighter kinds of soil where the land works freely; but four horses a-breast is the common mode of ploughing on stiff soils, and those who frequently plough with pairs only, contend that more are necessary on hard, flinty, or hilly work.

The Reverend Mr. Dampier observes, that horses are little attended to in Purbeck, and are in general kept but indifferently.

Mr. Alner of Piddletown, cuts much green food for horses, and they constantly lie in the stable, and make much manure by that means. In other parts of the county they have either hay or straw in the winter, in proportion to their labour, and other circumstances.

Mr. Ottan of Wootton Fitzpaine, observes, that horses at four years old are generally worth 40*l.* each, and perhaps the average value of working horses may be near 30*l.*; the expense of their food, &c. he thinks approaches near to 30*l.* per annum, and their labour should be estimated at 4*s.* per day.

Mr. Balson of Athelhampton, who constantly ploughs with two horses only, in the curricie fashion, finds it necessary to have strong horses, at 100*l.* a pair, or more. This gentleman is also in the practice of breeding nag-horses of considerable value.

Horses are sometimes sent to the salt-marshes, at 4*s.* per head per week; or to straw-yards at 3*s.* a week, one horse being deemed equal to two cows. At Morden, the keeping of a horse is said to be worth 10*s.* per week on the average.

Annual Expense.—In this point great exactness is not to be expected; the following, taking corn, hay, &c. at a very low rate, may perhaps be as accurate a calculation as circumstances will admit.

Two bushels of oats per week, for 32 weeks, } at 3 <i>s.</i> per bushel	£9 12 0
Hay, 2 cwt. for 32 weeks, at 3 <i>s.</i> per cwt.	9 12 0
Oats, 1 bushel per week, for 20 weeks	3 0 0
Grass, tares, &c. at 4 <i>s.</i> a week for 20 weeks, ...	4 0 0
Shoeing (at Frampton, 3 <i>s.</i> a quarter)	0 12 0
Harness	0 15 0
Farriery	0 9 0
Decline in value	1 10 0
Attendance	2 0 0
Horse tax (including groom, and one nag-horse)	1 0 0
Total annual expense of a horse	<u>£32 10 0</u>

If

If a horse, which is fed as in the above calculation, works 217 days in the course of the year, his labour is worth 3s. per day. As, however, the prices of all articles are now much raised, the annual expense of a horse cannot fairly be estimated at less than double the above, or upwards of 60%.

SECT. IV.—ASSES,

HAVE been used by Mr. Spear of Monkton, but they are given up, having proved very destructive to all kinds of living fences, and to white-thorn hedges in particular.

It appeared that six asses would plough as much land of any kind in a given time as three horses, and four asses were sufficient to plough broken land. They must be kept up in houses, &c. as they are liable to wander, as well as to injure the quicks: the quantity of food which they consume, was not noticed.

Mr. Richard Bridge, of Langdon Farm, near Beaminster, keeps 18 asses, 12 of which are generally employed in the carriage of marl, chalk, lime, or stone for draining.

It is believed that two asses will perform as much work as one horse, and they do it more conveniently in that hilly part of the country, as they carry their lading in panniers, where it would be difficult to use wheel carriages. They are also used for conveying turnips to the sheep in the pastures, and four asses, attended by two boys, will carry turnips to a considerable distance, enough to maintain 1000 sheep.

Mr. Bridge thinks their cost is but little, as their principal food in winter, is remnants of hay which are left

by the sheep: and in summer they run amongst the flock, and destroy a great many nettles, thistles, and brambles. But he allows they are injurious to fences, unless they are old ones, and must not be permitted to go near young quicks.

SECT. V.—HOGS.

THE Reverend Mr. Dampier observes, that few hogs are bred in Purbeck, and the dairy-men are chiefly supplied by drovers, from Devonshire and Cornwall.

The hogs in general use, are a long gaunt kind, of a white colour. Some of them I believe are imported directly from Ireland, and others from the neighbouring counties seem to be of the same kind; but there are also mixtures of the Berkshire, Chinese, and other breeds, but not many of remarkable excellence.

Mr. Balson of Athelhampton, has a cross of the Berkshire and Chinese; they fatten with much facility, but the dairy-man says “ they weigh nothing when they are fat.”

The dairy-men’s hogs are kept principally on whey and grass, with a little barley-flour, to make them up for the butcher. The pigs which are kept by the labouring classes, are fed for the most part with *scroff* potatoes, and are finished with barley-flour in some cases.

The Dean of Salisbury is the only one who feeds his hogs on lucern; but the bailiff says, it will only do for the store-hogs, and is not sufficient food for the breeding sows.

Hogs are subject to the distemper called rising of the lights, for which the following is said to be a cure: take
a quantity

a quantity of raddle of the coarse kind, (not ochre) about half a pound for a hog, put it in the tub amongst the swill, and dissolve it by stirring. It acts as a physic, and will readily give relief.

SECT. VI.—RABBITS.

THERE is a rabbit-warren on the coast, at East-Chaldon, and the rabbits are kept out of the corn-fields in some measure, by low banks with a hedge on the top; and another warren has been lately made by — Calcraft, Esq.

The farmers in general complain of these animals as a great nuisance; they find much shelter, and increase rapidly in the furze, brakes, hazel, coppices, &c., and sometimes 30 or 40 together may be seen running about, in a summer evening. They are now generally considered as the property of the farmers, and they find it their interest to diminish their numbers as much as possible.

SECT. VII.—POULTRY.

THE Rev. Mr. Dampier observes, that geese are kept in the cow-leazes in the Isle of Purbeck, from an idea that they promote the health of the cattle.

Most of the farmers keep poultry for their own use, but in general they seem to think that little profit can be obtained by raising them for sale. In this county, however, as well as in other places, the farmers' wives will often contend that a real profit may be obtained by poultry, as well as by other means; and though perhaps they
do

do not enter into any very accurate calculations, it may be supposed they are as competent judges of this part of rural economy, as their husbands, whose minds are absorbed in other pursuits. The advocates of small farms have always contended, that the larger occupiers neglect the rearing of poultry, and thus permit the corn which is left in the straw by the thrashers to be entirely lost ; and whether this loss be little or great, it is notorious that the large farmers in general speak of the gains thus to be obtained as beneath their notice. It is probable, however, that poultry would not have existed to the present time, if they were unprofitable creatures, according to the usual pretence of those who have more business than they can well attend to.

Mr. Balson of Athelhampton, observes that most of the labourers keep two or three fowls, and frequently rear chickens very early in the season.

There are not many ducks kept, although one farmer's wife formerly raised upwards of 300 : she used to supply His Majesty with ducks at the time he was at Weymouth.

Mr. Kippon of Upway is not aware that the ducks of that neighbourhood are in any respect superior to others, as had been supposed by some ; but the water is esteemed to be very good, and produces a great many water-cresses.

SECT. VIII.—PIGEONS.

MR. BALSON believes that about 500 pigeons will make three pot-loads of manure, worth 20s. per load. They are sold from 6s. to 8s. per dozen, and their dung is sometimes used by the tanners.

Major

Major Travers of Loders, thinks the pigeons are very useful in picking up the seeds of weeds in the fall of the year ; but they are, frequently very injurious to the crops of pease and tares that remain for seed. These birds are considered to be great enemies to thatched buildings.

SECT. IX.—BEES.

SOME information on the management of bees may be met with in this county, which differs from what many authors have written on this subject.

A person who kept many bees, says he has frequently tried to support weak hives by feeding, meaning any that weighed less than 20lbs., but he rarely or ever found it answer ; and he believes, if all the late weak hives were kept and fed, that the bees, one year with another, would consume all the honey that is gathered. The only way he can take to make his bees profitable is, to destroy all the hives under 20lbs. weight, taking the little honey there is, after the season for collecting it is over. He is further of opinion, that there are idle bad-working bees, which arises either from their being of a later breed, or some other cause. He has sustained a loss by keeping hives of more than four years old ; sometimes at the end of the winter the honey has been all gone from those strong heavy hives, and the bees dead. He does not think bees are so long lived as some people imagine.

CHAP. XV.

RURAL ECONOMY.

SECT. I.—LABOUR.

THE price of labour, in many parts of this county, appears to have undergone little variation for some years; yet, as it is paid partly in kind, by the allowance of wheat, and barley at a low and fixed price, it has, of course, advanced in some measure according to the increased price of provisions.

Mr. Sampson of Kingston Russel, observes that labourers are scarce in that neighbourhood. They have 9*s.* a week, and generally live rent-free in one of the cottages attached to their master's farm, who also supplies them with fuel gratis. Some have 7*s.* a week, and half a bushel of corn a man, at 6*s.* a bushel; and the carters have 8*s.* 6*d.*, with the same allowance of corn, dwelling-house, fuel, &c. Women-servants receive from 5*l.* to 8*l.* wages; and the time of hiring is mostly about Lady-day. Grass is mown at 2*s.* 6*d.* an acre, with ale or cyder. Wheat is mown at 2*s.* an acre, and Lent-corn at 1*s.* 6*d.* an acre, with ale. Harvest-men work from six o'clock till night; and the carters are allowed half a guinea more than their ordinary pay, on account of their not having the privilege of mowing corn by the acre. The ale which is given to labourers in hay-time and harvest, is brewed with four bushels of malt to the hogshhead, and but little food is allowed, except a harvest-home feast, which seems to be a pretty general custom. The poor
at

at Kingston Russel, and the neighbourhood, are generally allowed to keep a pig, with potatoes, and bran, and leazed barley.

Mr. Goodenough of Frampton, complains also of a scarcity of labourers. Labour is there 7*s.* 6*d.* a week, and cottagers in constant work are allowed good wheat at 7*s.* 6*d.* a bushel for their families, and are permitted to grow as many potatoes as will supply their families and keep a pig. The houses, in which they live rent-free, would let for 2*l.* or 3*l.* per annum; their fuel, which is principally furze, is conveyed to their homes free of expense.

Medical assistance is dispensed of course when needed, and Mr. Goodenough says it sometimes costs 30*l.* per annum at Frampton. In some places, surgeons are engaged to attend the poor at a fixed salary.

The women, who perform much field labour at Frampton, and many other places, have 6*d.* a day for common work, beginning at eight o'clock in the morning, and continuing their labour till six o'clock at night, if day-light permits. In harvest, they are allowed 1*s.* per day, while employed in sheaving or tying wheat, and 8*d.* in raking or other harvest work, and generally three pints or more of ale or cyder a day. The men are allowed seven pints of cyder per day, and 12*s.* more than their ordinary pay, on account of the harvest; but no victuals, except the harvest-home supper.

The price of hoeing turnips is 7*s.* or 8*s.* per acre, with a gallon of cyder. Carpenters 2*s.* 6*d.* a day, and two pints of beer.

The cottages at Frampton, and many other parishes in Dorsetshire, are mostly attached to the farms.

At Winford Eagle, Mr. Bridge gives 1*s.* a day to his labourers, with wheat at 5*s.*, and barley at 3*s.* a bushel.

The

The carters have 1*s.* 6*d.* a day, with the common privileges of house, fuel, &c. The same pay is continued in hay-time and harvest, with the addition of six pints of liquor per day when carrying corn, but about four pints on the average of the harvest. Mr. Bridge observes, that the men work frequently by the piece, and generally earn 2*s.* per day. Women have 6*d.*, and in harvest 8*d.*; and children from 4*d.* to 8*d.*

Mr. Groves of Luke Farm, Abbotsbury, gives 9*s.* a week, with a house, fuel, &c. worth 3*s.* more, but without any wheat at a reduced price. Labourers here generally earn 2*s.* 6*d.* a day in draining, &c.; they have 2*s.* a day for reaping wheat, with a gallon of liquor, and 15*d.* for mowing Lent-corn, with two quarts of drink. Cutting furze costs 2*s.* 6*d.* an acre. In this neighbourhood, some allow their labourers wheat at reduced prices, and some furnish a certain quantity of malt and hops, to be brewed by the cottagers for the use of their family in hay-time and harvest.

At Swyre, labourers have 10*s.* a week; but the carters and shepherds, who have wheat at 6*s.*, and barley at 2*s.* 6*d.* a bushel, with a house, garden, and fuel gratis, have only 8*s.* a week. Women 9*d.* a day in winter, and 1*s.* in summer, with two or three pints of ale or cyder in harvest, &c. Grass is mowed at 2*s.* 6*d.* an acre, with a gallon of ale or cyder (which is generally called liquor or drink), and many allow one or two pints of liquor per day in the winter.

It appears that very little small beer is drank by the peasantry of Dorset, either in winter or summer, though their ale is not so strong as that which is more sparingly dispensed among the labourers in some other counties.

At Stinsford, labour is 6*s.* or 7*s.* a week, with wheat at 5*s.*, and barley at 3*s.* per bushel. The same wages are also

also given at Frome near Dorchester, but by the piece some earn 12*s.* or more. In Dorchester, as in other large towns, wages are higher, as from 12*s.* to 15*s.* a week. Boys employed to keep birds from injuring the corn have about 1*s.* 6*d.* a week.

At Piddletown and the neighbourhood, wheat is allowed at 5*s.*, and barley at 2*s.* 6*d.* per bushel, but the barley is not permitted to be given to pigs. It appears that nearly all the cottages have ovens, and that a mixture of barley and wheat is sometimes used for bread, but no great quantity of barley is consumed in this way.

At Warmwell, the men have 7*s.* a week, with wheat at 5*s.* a bushel, and house and fuel. Some give 2*s.* a day, and 5*s.* an acre reaping, customary measure.

At Fleet, wheat is allowed at 5*s.* a bushel; as is also the case at Pokeswell, with 7*s.* a week, and a house, and fuel, which is furze, and which the poor cut for their own use, the farmer doing the carriage.

At Wimborne, 10*s.* 6*d.* per week; some have 6*s.*, and wheat at 6*s.* a bushel. Harvest 2*s.* 6*d.* a day; women 1*s.* 6*d.* Mowing Lent-corn 1*s.* 6*d.*, and a gallon of beer per day. Hoeing turnips 8*s.*, and the beer makes it 10*s.* an acre. *Pooking* of spring corn, or getting it ready to be loaded, is 1*s.* 6*d.* an acre, and is a work pretty much done by women, who also draw the large wooden drag rakes, to collect the loose scattered corn.

At Osmington, some have an allowance of house-rent, fuel, and wheat at 6*s.* per bushel, and 1*s.* per day; others have 9*s.* a week.

Much corn is mown by the acre at 1*s.* 6*d.* (customary measure) for Lent-grain, and 2*s.* 6*d.* for a *down*, or one field's length, and a gallon of beer a day. Barley is thrashed at 1*s.* 6*d.* a quarter, without a *grist*;
pease

pease 2*s.*; oats 16*d.* a quarter; grass 2*s.* an acre, or with a grist 1*s.* 6*d.* Women do much work at 6*d.* a day; hay-time 7*d.*, and harvest 1*s.* and a quart of beer. Drawing reed for thatching, is 4*s.* for a hundred sheaves. Men work by the day in harvest from eight o'clock till night; at other times, from six in the morning till six o'clock at night. Women at hay work from eight o'clock in the morning till night; and Mr. Wood observes, that labour was 5*s.* a week, or a bushel of wheat for that price, twenty years ago, at Osmington.

At Portisham, cottages are allowed without rent to old labourers, with 1*s.* a day, and wheat at 5*s.* a bushel; but hired labourers for occasional jobs have 2*s.* a day.

At Plush, 10*s.* a week without wheat, but some have wheat allowed at 5*s.*, and barley at 3*s.* a bushel.

At Morden, 12*s.* a week is the common price; and in harvest 3*s.* to 3*s.* 6*d.* with beer. Harvest men, in this neighbourhood, work from sun-rising till night. Wheat is reaped at 7*s.* or 8*s.* an acre, though often mowed at 2*s.* 6*d.* Wheat is thrashed at 6*d.* a bushel; barley 1*s.* 6*d.* a quarter; oats 1*s.* 4*d.* a quarter, and a man will sometimes thrash six sacks of oats per day.

It is common here to thrash three sacks of barley and five bushels of wheat in a day. Women have 8*d.* to 10*d.* a day in general, and in harvest 1*s.* 4*d.*

The labourers on the farm of J. Farquharson, Esq. at Tarrant Gunville, receive 8*s.* per week, and wheat at 8*s.*, and barley at 5*s.* per bushel, for family use; and the carters and shepherds have the additional privilege of living rent-free. Women 1*s.* a day; and the men work much by the piece at hay, and harvest-work, and are allowed 2*s.* each instead of the feast at harvest-home.

At Crawford, labour is 6*s.* a week, and wheat (which
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is termed a grist) at 6*s.* a bushel, and barley at 3*s.*; but it is here said that many are getting out of that practice.

In wheat harvest 2*s.* a day with liquor, and 1*s.* 6*d.* a day for the rest of the corn; but some *month's men* are often hired, who come from the Vale of Blackmoor and other places, at 50*s.* and victuals and drink.

Wages nearly as above are given at Spettisbury to occasional harvest men, while the regular labourers are allowed the privilege of earning additional wages by mowing wheat at 2*s.* 6*d.*, and barley, &c. at 1*s.* 6*d.* an acre. Common labour is 9*s.* or 10*s.* a week, without any wheat at a reduced price.

At Whitechurch, the common pay is 7*s.* a week, and wheat at 7*s.* a bushel; mowing wheat 2*s.* 6*d.*; barley, &c. 1*s.* 6*d.* to 2*s.* an acre. Servant maids 4*l.* to 7*l.* per annum.

In harvest, women come to work at eight o'clock at 1*s.* per day and liquor; 8*d.* a day is the common price for weeding, but the women find the manufacture of shirt buttons a more profitable employment in this neighbourhood. Farm labour about Blandford is 8*s.* or 9*s.* a week, and wheat at 6*s.* or 7*s.* a bushel.

At Athelhampton, women have 6*d.* a day, and 8*d.* in harvest. Men have 1*s.* a day, and wheat at 5*s.*, and barley at 3*s.* a bushel; but they work much by the piece mowing corn at 2*s.*, water-meadows at the same price, and dry meadows at 1*s.* 6*d.* per acre.

At Corfe Castle, 12*s.* per week is the common price, without any cheap corn, which is seldom allowed in the Isle of Purbeck, but many live rent-free, and fuel is provided by the farmers for their common labourers. It is common to give the labourers a gallon of liquor a day in harvest, and half a gallon in hay-time. Women 6*d.* a day for weeding, &c. and 1*s.* a day in harvest.

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At Swannage, farm-work is from 12*s.* to 14*s.* a week, without any other allowance except a house, though some few in that neighbourhood allow wheat at 6*s.* or 7*s.* a bushel, and 6*s.* or 7*s.* a week. Grass is mowed at 2*s.* an acre, and one bushel and a half of malt allowed to every 20 acres; oats, barley, &c. are mowed at 1*s.* 6*d.* an acre.

At Kimmeridge, the women draw *reed sheaves* at 5*s.* a hundred; the men have 9*s.* in winter, and 12*s.* in hay and corn harvest, with the carriage of furze and peat, and a house and garden gratis, but no corn under the usual price.

At Wareham, day-work is 2*s.*, but much is done by the piece. Wheat is not allowed at a low price, but the labourers grow many potatoes on their masters' fallow, as is the case in a great many parishes of Dorsetshire.

At Shaftesbury, 2*s.* per day is the general price, but farmers give 8*s.* or 9*s.* to their constant men, and a gallon of beer or cyder, as is common in most parts of the county; but neither here, nor in the Vale of Blackmoor in general, is it customary to allow wheat or barley at a reduced price. Wheat is reaped at 9*s.* or 10*s.* an acre, but corn mowed at 2*s.*

At Fifehead Magdalen, the weekly pay is 10*s.* in winter, and 12*s.* in summer, without much other allowance.

At Sturminster Newton, men have 8*s.* or 9*s.* a week, and 2*s.* and a gallon of beer per day during harvest. Women 8*d.* a day.

At Okeford Fitzpaine, women weed corn, &c. at 8*d.* a day; men have 6*s.* and their victuals for a month in hay-harvest, as is the case in other parts of the Vale of Blackmoor; which contains but little arable land.

The price of labour at Lord Digby's at Sherborne is 9*s.* a week. In harvest much more is earned, by reaping and binding wheat at 7*s.* an acre and three gallons of beer,

beer, or mowing Lent-corn at 1*s.* 6*d.* Water-meadow grass is cut at 3*s.* an acre, and a gallon of beer; common meadows at 2*s.* or 2*s.* 6*d.* The reed is drawn and wheat thrashed at 7*d.* a bushel for the whole business; oats 16*d.* a quarter; barley 18*d.*; pease 3*d.* a bushel, winnowing not included.

At Bradford Abbas, 9*s.* a week for common men, but the carters have 10*s.*; for hay and harvest-work 2*s.* a day and a gallon of cyder, but no victuals. Wheat is reaped, bound into sheaves, and put into windmows, of half a cart-load each, for 8*s.* an acre, and three gallons of beer.

At Ryme, 9*s.* in winter, and 12*s.* in summer, is the usual pay, without any corn at reduced prices.

At Chetnole, 2*s.* 6*d.* a day, and a gallon of cyder in summer. This is also the price of mowing an acre of grass. The men sometimes have some victuals in hay-time.

At Glanvilles Wootton, labour is 9*s.* a week in winter, and 10*s.* in summer. In harvest there is much work by the piece (which is here called *tut* work); grass is mown at 3*s.* per customary acre, and a gallon of cyder, and it is said that some men will mow two acres a day.

Women do little field-work in this part of the county, but earn about 6*d.* a day in spinning.

At Melbury Osmund, labourers are scarce, and have 2*s.* a day. Women 8*d.* to 10*d.* for hay-making, &c. Grasses cut at 3*s.* an acre, and a gallon or more of cyder, and often hot dinners twice a week.

At Cheddington, the pay in winter is 1*s.* 6*d.* a day, and 2*s.* in harvest and hay-work, with more than a gallon of liquor. Women have 8*d.* in common, and 16*d.* in harvest, with three pints of beer. The price of thrashing

ing is, wheat 6*d.* a bushel, barley 20*d.*, and oats 18*d.* a quarter, winnowing not included.

The price of labour at Netherbury is 1*s.* 6*d.* a day, with cottages and gardens rent-free; and Mr. Conway observes, that wheat at reduced prices is seldom allowed to labourers in this part of the county. In harvest, labourers have 2*s.* 6*d.* a day, and twelve pints of cyder.

At Symondsbury, labour is 2*s.* a day in general; but Mr. Pittfield remarks, that it is a pretty general custom to supply wheat at a low price.

At Mapperton, 1*s.* 6*d.* per day in winter is the ordinary price of labour, and 2*s.* 6*d.* while employed in reaping in harvest. Barley, and other Lent-corn, is mown at from 20*d.* to 2*s.* an acre; and the men generally earn about 2*s.* a day in thrashing of corn. The shepherd and carters have 7*s.* a week, and half a bushel of wheat at 6*s.* a bushel.

Seven shillings a week, and wheat at 8*s.* a bushel, is the price of labour at Wootton Fitzpaine. Wheat is reaped and banded at 7*s.* an acre; other corn is mown at 1*s.* 6*d.* an acre, and the men often drink two gallons of liquor a day. Grass mown at 2*s.* an acre, and cyder.

At Dallwood, labour is 9*s.* a week in winter, and 10*s.* 6*d.* in summer, with liquor and some victuals; and they make it a kind of rule for the men to have half a pint of cyder every ridge they go down in harvest.

At Titheridge, the pay in summer is 1*s.* 6*d.* a day, and victuals and drink. Some flax-dressers earn 20*s.* a week.

At Powerstock 10*s.* in winter, and 12*s.* in summer.

At Woolbridge, labourers receive 9*s.* a week all the year round, and beer in harvest, at which time they work by the acre. Some strangers are occasionally hired by the month.

Between

Between Woolbridge and Weymouth 2s. a day is generally given for the greatest part of the year.

At Winfrith and Lulworth, wheat at a low price is but seldom allowed; but that custom is still continued at the Chaldons.

In the Isle of Portland, labour is 16s. a week for constant men, and some extra labourers in harvest cost 3s. 6d. a day, and beer. Women have 10d. a day for weeding, &c., and 1s. 6d. with some beer in harvest. They reap most of the wheat, and frequently the barley and oats, even when short in the straw, as in the present season.

SECT. II.—PRICE OF PROVISIONS.

THE price of corn in this county, for 17 weeks after the middle of September 1810, compared with the average price in England and Wales, is as below :

	<i>Average price in England and Wales per Quarter.</i>				<i>Average price in Devon per Quarter.</i>		
	£	s.	d.		£	s.	d.
Wheat	4	16	3	.....	5	11	1
Barley	2	4	8	.....	2	6	1
Oats, near the end of 1810 — — —	—	—	—	.....	1	8	0
Beans, near the end of 1810 — — —	—	—	—	.....	3	8	0

The relative price of corn in this county is more above the general average in this season than is commonly the case, on account of the remarkable failure in the wheat crops. Almost universally, however, the price of wheat averaged for this county is above the average price of wheat as published in the Gazettes; and the price of barley is, with few exceptions, below the average price for England and Wales.

SECT. III.—FUEL.

IN the neighbourhood of Shaftesbury, and generally in the northern and north-western parts of the county, coals are brought from the Mendip pits in Somersetshire, and were sold in 1811 from 2*s.* to 2*s.* 6*d.* per cwt. In the south-eastern parts of the county, the vicinity of Poole enables the inhabitants to be supplied with Newcastle coals, which, in the same year, were sold at 2*l.* 5*s.* per chaldron.

Furze is seldom burnt for common use, being generally bought and consumed by the bakers and brick-makers.

CHAP. XVI.

POLITICAL ECONOMY:

CIRCUMSTANCES IN SOME DEGREE DEPENDENT UPON
LEGISLATIVE AUTHORITY.

SECT. 1.—ROADS.

THE turnpike roads in the chalky district, are repaired by flints; but limestone broken to pieces with hammers, is the principal material of which the public and private roads are composed in all the rest of the county.

The turnpikes, and other roads on the dry soils, appear to be in a good state, and have a sufficient convexity to cast off the water, which in sudden showers runs into small shallow pools that are made by the sides of the roads to receive it, and is soon absorbed in the chalky substratum.

The bye-roads in some parts of the Vale of Blackmoor, and the western division of the county, are miry, and scarcely passable in winter, and the large rough loose stones with which they abound, render them very unpleasant in summer.

SECT. II.—IRON RAILWAYS.

A ROAD of this kind three miles and a half in length, was made in 1806. It extends from the pits of potters-clay at Norden, near Corfe Castle, to a place, opposite Poole, where the clay is shipped for Liverpool.

The iron rails of which this road is composed, are three feet long, and five-eighths of an inch thick at the bottom, where the plate on which the carriage-wheels run, is three inches and a half wide, with a vertical edging three inches high on the side next to the horse-path, and they weigh about 40lbs. each.

The ends of the rails are supported on stones of 60 or 70 lbs. weight, in each of which is made a hole to receive an oak-plug, to which the rails are fastened by means of a large headed-nail driven between the contiguous ends, through a small cavity which is left for that purpose.

The declivity of the road is in some places four inches, and in others five inches for every 20 yards, and the expense attending this work, is stated by Mr. Willis of Norden, at about 2000*l.* a mile for new work. The clay is conveyed on small carriages with four iron wheels, carrying two tons each. Three horses draw 10 tons to the sea-side three times a-day, at the expense of about six-pence a ton weight.

SECT. III.—CANALS.

THERE are no canals in this county: but an enterprise of this kind was projected and partly executed, but laid aside, after an expenditure of many thousand pounds.

In the Report for the County of Somerset, this canal which has been abandoned, is called “the *Dorset and Somerset canal*, commencing near Nettlebridge, and extending through Frome to the county of Dorset.” The project of carrying this canal through the Vale of Blackmoor, and along the course of the Stour towards the sea, was found to be attended with insuperable difficulties at Blandford, which is close to one side of the river, and the mansion and pleasure grounds belonging to Mr. Portman at Bryanstone, extend along the opposite banks.

A navigable canal is intended to pass from Somersetshire, by Chardstock in Dorsetshire, to the sea, near Beer and Seaton, in the county of Devon.

SECT. IV.—FAIRS.

THE following is nearly a correct list of the fairs in this county: most of those respecting which no remark is made, are become little more than holiday fairs; and such is the case with many others.

Abbey Milton—Tuesday after July 25.

Abbotsbury—July 10.

Allington—July 22.

Beaminster—September 19, a few beasts.

Blandford—March 7, July 10, and November 8, for horses, sheep, &c.

The last is a large sheep fair.

Bridport

- Bridport**—April 6, for fat beasts, cows and calves, bulks, &c.; Holy Thursday at the Harbour—a pleasure fair; October 11, a small fair for pedlary and cattle.
- Broadway**—Wednesday before September 18.
- Broad Winsor**—Trinity Monday.
- Cerne Abbas**—Midlent Monday, for barren cows, and cows with calves; Holy Thursday, and October 2.
- Corfe Castle**—May 12, and October 29, for hogs and toys.
- Cranborne**—August 24, December 6, for cheese and sheep.
- Dallwood**—The first Wednesday before August 24.
- Dorchester**—February 14, for cows and calves, barreners, &c.; Trinity Monday, for cows and horses; July 6, sheep and lambs, &c.; August 6, sheep and lambs, wool, leather, &c.
- Emmergreen**—Tuesday before Holy Thursday.
- Evershot**—May 12, for cattle and toys.
- Farnham**—August 21, cheese and toys.
- Frampton**—March 4, August 1, September 4.
- Gillingham**—Trinity Monday, for cattle, &c.; September 12, for toys.
- Hermitage**—August 26, for horses, &c.
- Holt-wood**—August 6, for horses, sheep, and toys.
- Lyme Regis**—February 13, October 2.
- Leigh**—March 25, May 1, September 3.
- Lambert's Castle**—The Wednesday before June 24, Cattle.
- Maiden Newton**—March 9, and May 4, for cows, &c.
- Martin's-town**—November 22 and 23, for sheep, cows, and horses.
- Milborne St. Andrews**—November 30, for sheep, cows, &c.

Melbury

Melbury—Whitsun-Monday.

Ower Moigne—October 10, for pigs, &c. and toys.

Poole—May 1, and November 2, a free mart for toys.

Pamphill—July 7, and October 29.

Piddletown—Easter Tuesday, for cows, pigs, &c. Oct. 29.

Portland—November 5, Portland sheep.

Shaftesbury—Saturday before Palm Sunday; June 24, and November 23, for all sorts of cattle.

Sherborne—Wednesday before Holy Thursday, for all sorts of cattle; July 18, for wool, cattle, horses, &c.; July 26, for lambs, &c.; October 13, for wool, and all sorts of cattle.

Shroton—September 25, for sheep, cows, cart-colts, cloth, &c.

Stalbridge—May 6, and September 4, for beasts, &c.

Stockland—July 18, for cattle.

Sturminster—May 12, and October 24, for fat cattle, &c.

Sydling—December 6, for cattle, &c.

Toller Down—May 29, sheep, &c. and the next day, for toys.

Wareham—April 17, cattle, &c. July 5, and September 11.

Wimborne—Friday before Good Friday, cattle, horses, &c. September 14, cattle, horses, sheep, and cheese.

Woodbury-hill, near Bere-Regis—September 18, and five following days, for all sorts of cattle, horses, hops, cheese, cloth, haberdashery, and all sorts of goods.

Woodland—July 5, for horses, cheese, &c.

Woolbridge—May 14, for cows, pigs, toys, &c.

Ytminster—The first Tuesday after April 20, and October 4.

The alteration of the style has caused much uncertainty in the old lists of fairs, as some of those which are regulated

lated by different Saints days, according to the old style, have followed them by advancing one day forward, and others have kept the same day of the month as before. Moveable fairs have also been represented in some cases as if they were fixed to the day on which they happened to fall in some particular year.

SECT. V.—MARKETS.

Dorchester—Saturday, much corn sold by samples, and all kinds of provisions.

Blandford—Saturday, corn by samples, and provisions of various sorts, (“but no poultry.”—*Mr. P.*)

Shaftesbury—Saturday, corn by samples, butchers’-meat, &c.

Cerne Abbas—Wednesday, corn, and some provisions on Saturday.

Sherborne—Thursday, and Saturday; the latter is the principal corn-market.

Beaminster—Thursday, a little corn, &c.

Bridport—Wednesday, butchers’-meat, &c. Saturday, corn in samples, meat, &c.

Wareham—Saturday, corn, butchers’-meat, butter, &c.

Wimborne—Friday, corn, cattle, butchers’-meat, &c.

Sturminster Newton—Thursday, corn, &c. Saturday, for butchers’-meat.

Poole—Thursday, butchers’-meat, and other provisions.

Lyme-Regis—Friday, a little corn, &c.

Melcombe Regis, (or Weymouth)—Tuesday and Friday for all kinds of provisions. A little corn is sold in the Tuesday’s market.

Corfe Castle—Thursday, butchers’-meat, &c.

Cranborne—Thursday, nearly lost.

Stalbridge

Stalbridge—Tuesday, a cattle market once a fortnight.

Similar markets are also kept at Sherborne, Sturminster, and Wareham.

Markets were formerly kept at Bere Regis, Evershot, Frampton, and several other places.

SECT. VI.—WEIGHTS AND MEASURES.

THE bushel which is used in this county is said to be according to the Standard measure, but coals and culm are sold by the double bushel, eighteen of which make a chaldron. At Weymouth two-thirds of a double bushel is supposed to be contained in the measure, and one-third heaped up as long as the coals will lie on. A bushel of coals should weigh $1\frac{1}{2}$ cwt. but the bad coals weigh more. Eight gallons make a bushel of flax seed, but nine bushels of hemp seed is five pecks, nine gallon measure.

Corn is sold by the sack of four bushels, and the same quantity of lime is called a hoghead: 40 bushels are called a load of wheat.

At Sherborne, Bridport, &c. meat is generally reckoned by the *score* (lb.) but the stone of 14 lb. is in use. A pound of butter in some parts of the county contains 18 ounces.

Wool is sold by the *wey* (or *weight* as it is called) of 30 lb.; and it is customary to allow a pound, or half a pound over in some places. A weight of hemp is 32 lb.

Land is measured by the goad or lug of 15 feet and an inch. A customary acre is therefore equal to about 134 square poles, statute measure.

The customary measures seem to be more used in the western than in the eastern parts of the county.

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**SECT. VII.—PRICE OF PRODUCTS COMPARED WITH
EXPENSES.**

THE expense attending every article of produce, and the relative value, are kept in such a continual state of fluctuation by the influence of various causes, that it is impossible to compare them, with any useful degree of accuracy.

SECT. VIII.—MANUFACTURES.

“ THE principal manufactory in this county is that of flax and hemp in the neighbourhood of Bridport, and Beaminster; where all sorts of twine, string, packthread, netting, cordage, and ropes are made; from the finest thread used by saddlers, in lieu of silk, to the cable which holds the first rate man of war.

“ The nets made for the fishery at Newfoundland, as well as for home use, and the sails for shipping of every kind, are manufactured of the best quality, as well as sacking for hammocks, &c. and all kinds of bags and tarpaulin; and in addition to the great quantity of flax and hemp used, not more than one-third of it is allowed by the manufacturers to be of British growth; the remaining two-thirds of it are imported from Russia and America, as raw materials.

“ This manufactory is carried on at Beaminster, chiefly under the direction of Messrs. Cox and Co. who employ about 600 people in this business: and in and about the environs of Beaminster, there are upwards of 2000 people employed by them and others. At Bridport there
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are a great number of manufactories; and about 1800 people are said to be employed in this town; and in its environs, as far as seven or eight miles round, upwards of 7000 people are in constant work.

" This manufactory is a great support for poor people: after pressing and beating the materials in mills for that purpose, and combing, and cleaning, it affords employment in the process of spinning to women, and children, who are paid at the rate of two-pence per pound; they can spin about four pounds a day, amounting to 8*d.* per daily earnings; besides which the manufacturer pays two or three pence per day, to a child to turn the wheel; it is then twisted, cleansed, and softened for the weaver.

" The sail cloth is made in pieces of about 40 yards each, yard wide, and worth from 15*d.* to 17*d.* per yard. Sacks for grain and flour are also made here, and those without a seam, to hold each four bushels, nine gallons measure, at 37*s.* per dozen."—*Claridge.*

Mr. Roberts has a flax-mill at Burton Bradstock, and he employs about 100 persons, chiefly young children.

This is the first instance of the application of machinery in this part of the country, to the breaking, swingling, and spinning of flax into thread, but there are now several mills of the same kind at Bridport, &c. and Mr. Cox is building one at Fifehead Magdalen.

The manufacturers which are employed by Mr. Cox of Beaminster, earned in 1810, about 2*s.* a day each.

The various branches of the hemp and flax manufactories are carried on in many parishes in the west of the county, where those plants are cultivated. At Loders, and other places, young girls are often employed in weaving of sail-cloth; and along the western coast, toward Weymouth, many of the women braid nets for the Newfoundland fishery.

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"There is a manufactory in the neighbourhood of Shaftesbury of a kind of flannel called swanskin, which is a coarse white woollen cloth, used for soldiers' cloathing, and made from 18*d.* to 2*s.* a yard; but this is of little consequence to Shaftesbury, the chief trade in this article being carried on at Sturminster Newton, where about 1200 people are employed in it, and where between 4000 and 5000 pieces, containing 35 yards in length, in a piece, yard wide, are annually made."—*Claridge*.

At present the woollen manufactures are almost confined to Sturminster and Lyme Regis, at which latter place broad-cloth and flannels are made in considerable quantities.

At Sturminster there are four or five clothiers, and about 300 weavers; sometimes 700 or 800 people are employed in the manufactory of Swansdown, but the trade is not so considerable as was formerly the case.

Worsted stockings are knit in great abundance for sale at Wareham, Corfe Castle, Wimborne, and various other intermediate places.

At Sherborne, Stalbridge, and Cerne Abbas, there are manufactories for twisting and making up raw silk into skains. According to Mr. Claridge, this manufactory was on the decline 20 years ago, at which time he says 800 women and children were employed in it at Sherborne, and 150 at Stalbridge. There are now four silk mills in Sherborne, in which alone, about 200 women and children are employed.

The manufacture of shirt-buttons is extensively carried on at Shaftesbury, and Blandford, and the surrounding villages on all sides, to seven or eight miles distance. Many women and children are employed in this manufacture in most parts of the Vale of Blackmoor, and in several parishes in the Isle of Purbeck.

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Mr. Atchinson of Shaftesbury employs about 1200 women and children in making shirt-buttons; he has several schools in different parts of the county, and in them children are taught on the following conditions: at first for three or four weeks they have no pay, nor do they earn any thing, as they spoil much thread; after that time they have a penny a day, for two months, and then a shilling a week for two months more: their pay keeps increasing for 12 months, and then the best hands can earn from 10s. to 12s. a week. The manner of paying them their wages, is to provide them with clothing at their first entrance, and trust them for the money; and they frequently leave Mr. Atchinson, when they are master of their work, and engage with other masters, that it may not be known what they earn when they apply for parochial relief. The price of the mould buttons when finished is from 8d. to 3s. a dozen, and the wire work is from 18d. to 4s. a gross. The master finds all materials.

Mr. Claridge speaks of the inferior sorts being made in 1793 at 5d. per gross of twelve dozen, the labourer finding the thread.

It is said that some few girls have been able to make 12 dozen of these buttons in a day, the price for making which has been as high as 3s., but the more usual quantity made in a day is six or seven dozen. Women could earn formerly 10s. or 12s. a week at this employment, but at present only 6s. or 7s.

The first operation is to *cast*, or cover the wire, and this is often done by children of six or eight years old: they are afterwards *filled* by more expert hands.

There are other manufactories on a small scale in different parts of the county. Lobster pots, which are a kind of wicker baskets with a small hole at the top, are

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made at various places on the coast, and the inhabitants of the adjacent villages find employment in fishing.

Malting and brewing is carried on at Wareham, Dorchester, &c. and malt is exported to Portsmouth and London.

There is an iron-foundry at Bridport. At Lyme there is an oil-mill, and Mr. Bridge has another at Winford Eagle.

In addition to the above account, the following manufactures may be mentioned.

Beaminster—woollen cloth, and two potteries for coarse ware.

Broad Winsor—spinning woollen yarn.

Canford Magna—two ropery yards.

Cerne Abbas—a small dowlas manufactory, and a great many shoemakers.

Cranborne—a pottery for coarse earthen-ware.

Fifehead Neville—woollen swanskin.

Gillingham—bed ticking.

Hamworthy—ship-building.

Lytchet Minster—spinning twine.

Melbury Osmund—stay-makers' tape, known by the name of Melbury iron tape, and dowlas weaving.

North Chardstock—a tobacconist and snuff-maker.

Oborn—cloth and parchment.

Silton—ticking and dowlas.

Stockland—here are two serge weavers.

Stoke Abbots—sail-cloth, sacking, and narrow cloth.

Stourton Caundle—swanskin from lambs' wool.

Swannage—plaiting straw, (introduced seven or eight years ago).

The dealers in grocery, cloth, &c. who employ women to make shirt buttons, it is said, generally contrive to pay
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the greater part of their wages in goods, rather than in money, by which means they have nothing left to support them in case of sickness. Besides, many of the farm-labourers in Dorset are paid in kind, or have an allowance of wheat sufficient for their family, which makes the occasional absence or illness of some of the children a matter of little consequence to their parents; but the case is not similar among the manufacturers.

SECT. IX.—COMMERCE.

THE principal foreign trade of this county is carried on at Poole, at which port more than two hundred sail of shipping are employed in the coasting trade and the Newfoundland fishery. The exports are provisions, nets, cordage, sail-cloth, pipe-clay, malt, &c. The imports, cod, salmon, oil, seal-skins, furs, &c.

Vast quantities of building-stone are annually exported from the Isle of Portland, and flooring-stone from the Isle of Purbeck, with many thousand tons of potters' clay.

Coal, and culm for burning limestone, are imported to a considerable extent.

SECT. X.—POOR.

THE most important information respecting the Poor, has already been given under the head Poor's Rates; the present Section will therefore contain only some miscellaneous additional notices on this most interesting subject.

Mr. Russell, of Beaminster, does not seem to entertain a very favourable opinion of work-houses, for he believes it is less expensive to relieve the poor at their own homes. They are not so capable of earning money in work-houses, as was the case previous to the introduction of machinery.

The food of the poor is wheaten bread, skim-milk cheese, puddings, potatoes, and other vegetables, with a small quantity of pickled pork and bacon. In some parts of the Vale of Blackmoor, the peasantry eat very little besides bread and skim-milk cheese, but labourers have, in some places at least, one or two pints of ale per day through the winter; and they sometimes hire a part of the fallows at 1*s.* a perch, to plant with potatoes.

The custom of allowing as much wheat as is necessary for a labourer's family, at the regular price of 5*s.* 6*s.* or 7*s.* a bushel, has subsisted many years, and seems almost confined to the chalky or upland districts.

Mr. Portman believes it is a very beneficial custom to allow the poor bread-corn at 6*s.* or 7*s.* a bushel, as it prevents the necessity of their dealing so much with village hucksters, who often supply them with inferior articles at a high price; if they get in debt, he says, it injures their moral character, and this is a circumstance to which the stoppage of the Salisbury and other banks in 1810 very much contributed, as it brought on the necessity of paying two or three labourers together with a bank note for want of silver.

This custom must have proved very beneficial to the labourers in this county in seasons of scarcity; but it appears to be now on the decline, and will probably cease to exist in a few years, if the present high prices of corn continue. Perhaps a general recommendation to the farmers to allow wheat at 8*s.* or 9*s.* a bushel, with some addition

addition to the money-price of day-labour, might contribute to establish a practice, so well calculated to preserve the peace of the country, and the ordinary comforts of the poor in seasons of scarcity and distress.

In such years as 1810, 1811, 1812, the farmers must lose much money by allowing wheat at less than half the market-price ; but in other seasons it is said that the poor are dissatisfied, on account of their receiving only the same nominal wages of 6*s.* or 7*s.* a week, as was the case twenty years ago.

About a bushel of wheat is consumed in a week by a man and his wife and three children, which is more than 10 bushels each per annum. Some people assert, that the above-mentioned quantity is enough to supply a family of six persons ; and the poor are sometimes accused of unnecessary wastefulness, in making cakes without yeast, and broiling or baking them on a gridiron, by which means, it is said, the quantity is lessened. Very little barley is used for bread ; and the women are deemed too luxurious in drinking tea two or three times a day, instead of purchasing more substantial nourishment.

The manufacture of shirt buttons, in some cases, appears to excite dissatisfaction among the farmers ; they cannot get women to weed the corn for 9*d.* a day, when they can earn 12*d.* or 18*d.* in button-making, which they lay out in fine clothes ; and when they do come into the field, they are both awkward and unhealthy : they are also said to be unfit for service, and so ignorant as scarcely to know how to wash and mend their own clothes.

The best servants, it is acknowledged, are taken from the families of those who occupy small dairy farms, &c. in the Vale of Blackmoor, and other parts of the county ; and who bring up their children in habits of sobriety,

honesty, and industry, and give them that small portion of education which is suited to their condition.

There are no statute fairs kept in this county for hiring servants, and indeed very few men-servants are taken into the farmers' houses. It is said to be a prevalent custom to hire servants for only eleven months, for the purpose of avoiding additional incumbrances on the parishes. Hence a deficiency of labourers may be expected as a necessary consequence.

Mr. Park of St. Giles's, believes the state of the poor is much altered for the better within the last twenty years, and principally by the introduction of potatoes, which were scarcely known thirty years since. At the former period, the labourers had very little beside bread and cheese and water, but at present they have the important additions of potatoes, pork, and bacon. Almost every one keeps a pig, which is fed on potatoes, and sometimes finished with a small quantity of pease or barley.

The custom of allowing the labourers to grow potatoes on the fallows otherwise intended for turnips, appears to be a distinguishing merit in the upland farmers of this county; and in the villages that are purely agricultural, the greater part of the poor have a house, a garden, a potatoe-ground in the field, and fuel, and medical aid, all free of expense, and wheat at a cheap rate. The price of labour and the poor-rates are so intermixed and altered by these circumstances, that it is almost impossible to ascertain what belongs to each separately.

The portion of the fallows allowed to labourers is regulated by the number in the family, and it is sometimes as much as one-third of an acre. The produce is from 50 to 100 bushels or more, and the labourer is expected

pected to find a sufficiency of manure for the land he occupies, and by means of keeping a pig, it is said, this may be effected.

Many of the poor keep two or three fowls; and they have generally ovens and plenty of fuel, to enable them to make use of the economical method of baking their own bread.

In these respects their situation is much superior to that of the poor of Bedfordshire, &c. amongst whom home-baked bread is little used, as such as have families cannot purchase the corn, and are much in the habit of stealing their firing, or begging it, together with their house-rent and clothing, of the parish officers. Many of them are become deeply indebted to the village shop-keepers in the late seasons of scarcity, and so much are their morals depraved by this circumstance, that it is said they frequently make it their study to increase their debts rather than to lessen them.

Such a state of society cannot be too much deprecated; nor the means by which it is caused or increased too sedulously guarded against, by those who have the good of the country in view. The improvement of agriculture, though a subject of great importance, appears of far less consequence than the cultivation and improvement of the human race. It is a subject, therefore, of national interest, to consider whether those improvements in agriculture which are founded on an increase of the poor, and all the evils attendant on indigence, may not contain the germ of destruction to all the best interests of mankind.

The growth of potatoes, as observed by a farmer on the chalky district, affords a means of keeping the labourers more under subjection, and prevents their leaving their master at least during the summer; as in that case the crop would be forfeited.

Those labourers who pay no rent, mostly reside in cottages attached to the farm where they work; thus though they nominally live rent-free, yet in point of fact it is more proper to say, that the farmer receives his rent weekly by stopping 10*d.* or 1*s.* of the wages that would otherwise be allowed.

The chalky district is represented to be rather under-peopled, and the insufficiency of hands to perform the necessary operations of agriculture, has been the principal inducement to the introduction of thrashing-machines, and has perhaps caused the interests of the poor to be attended to more than might otherwise have been the case.

The farmers will of course obtain plenty of hands if they outbid the manufacturers; but as this can seldom be the case, other means must be resorted to.

Among these, it seems that the practice of letting the labourers live rent-free is the chief, as the magistrates of the county have agreed, that a man is under an obligation to work for the farmer, in whose cottage he resides; apparently under the idea, that he is receiving a part of his wages every day in house-rent.

Under these circumstances, the liberty which is left to the labourer is very small indeed. To be deprived of the power of choosing their own masters, is an unpleasant idea, and forcibly brings to mind the ancient feudal tenures of England, and the modern ones of other countries, where ignorance, vice, and poverty, go hand in hand.

Notwithstanding the alleged deficiency of labourers, a scarcity of cottages for their proper accommodation is a subject of much complaint in Dorsetshire, as well as in other parts of England. Hence it sometimes happens,
that

that a man and his wife, and his sons and daughters, all sleep in the same room.

The allowance to the poor in case of sickness, is not attended with much difficulty in those parts of the county where the whole family is employed in field-work; as it is understood to be a general regulation of the Magistrates, that the earnings of the whole family shall be increased by an allowance from the parish, till the sum total is sufficient to purchase a half-peck loaf of bread for each individual.

In other instances, the Magistrates determine that a man and his wife shall not have less than 8s. each for their weekly support, allowing half a crown a-piece for the children.

This county is deemed remarkable for the healthiness of its inhabitants. It is said to be an observation made by Mr. Arbuthnot, that a physician could *neither live nor die* in Dorsetshire.

Box-Clubs—Have been established in various parts of the county. Some of them, in Purbeck, &c. consist almost entirely of quarry-men and stone-workers.

There is a benefit club at St. Giles's, consisting of 200 persons, who meet annually, and the stewards meet quarterly.

Clubs of this description generally consist of young men when they are first established; and as they become old and infirm nearly at the same period, their funds become extinct, and the clubs are often broken up in the life-time of some of the original members. Box-clubs might prove a great relief to the poor's-rates, if they were properly supported; and it is believed that this would be frequently done, were it not prevented by a considerable number

number of the members belonging to other parishes besides that in which it is established.

It is probable that the lower classes of people might be induced to subscribe to clubs of this kind in a way that might prove essentially serviceable to themselves and the country, provided a general county club was established by Act of Parliament, on such grounds as would deviously tend to improve the general condition of the poor.

If the allowance from these clubs consisted merely in such a small sum of money as is necessarily allowed to the sick and aged by the parish officers, it could never meet with any support from those who are likely to need parochial aid; as they would instantly perceive it was a plan to make the poor pay the poor's rates. In the establishment of such clubs, it would follow of course, that the allowances of various kinds on account of sickness, old age, &c., and to widows and orphans, should be in proportion to the sum subscribed, the time the subscription was continued, and many other circumstances. In support of such a club, it would probably be found the most equitable and effectual plan to cause every parish to add to the funds annually, a sum equal to the whole of the voluntary subscriptions received from its inhabitants. The money thus accumulated might be put into the public funds.

For a few years, an establishment of this kind, like other improvements, would be more expensive than profitable, but perhaps in the course of time it might rouse the poor to a sense of the blessings of independence, and the disgrace which attends supplicating relief from the parish.

In the parish of Tolepiddle, Mr. Pitt gave liberty to ten cottagers to keep a cow a-piece on the common in summer, with a sufficient provision of hay for winter keep,

keep, and permission for the farmers to supply any vacancies that might happen.

Mr. Pitt offered to lend some of them money to purchase a cow, but few came into the plan, for want of sufficient knowledge, or some other cause.

Mr. Frampton keeps a few cottagers' cows in the same method, on his estate at Moreton.

Every attempt to meliorate the condition of the poor, whether successful or not, is worthy of attention at this period, when there are probably not less than fifty instances of small portions of land taken away from the lower classes of the people, where there is one of the truly humane and patriotic tendency above-mentioned.

SECT. XI.—POPULATION.

SOME particulars on this subject are here inserted from the returns made to the Population Act, in 1801.

Inhabited houses	21,437
By how many families occupied	24,142
Uninhabited houses	825
Males	53,667
Females	61,652
Total of persons } resident	115,319
in 1800. } including military men, &c.	119,100
Ditto in 1750	96,400
Ditto in 1700	90,000
Inhabitants to each square mile	98
Acres to each inhabitant, supposing the extent } of the county to be 775,000 }	6½

The total population of England and Wales has increased between 1700 and 1801, from 5,512,900 to 9,165,400 persons,

persons, and had the population of Dorsetshire increased in the same proportion, the present number would have been 149,628; which is 30,528 more than the enumeration of 1801.

This relative deficiency in the increase of population is very remarkable, and seems to indicate that the progress of such improvements as increase the numbers of inhabitants, has not been very rapid in this county.

The annihilation of the leasehold system, and the formation of extensive farms in the chalky district, seem to be the only remarkable circumstances that have taken place in the rural economy of the county; and it appears from Hutchins's History, that a partial depopulation has occurred in several of the parishes, but whether in consequence of the land being laid to pasture, or some other cause, cannot easily be ascertained.

The population in the southern districts, is said to be insufficient for the performance of the labours of husbandry; a consequence which may be ascribed in part to the war, and in some measure to the care the farmers take to prevent the accession of new inhabitants, by hiring their servants for only eleven months.

CHAP. XVII.

OBSTACLES TO, AND MEANS OF IMPROVEMENT.

IN considering the obstacles to the Agricultural Improvement of any particular county or district of the kingdom, it is necessary to advert both to those which exist in it in common with other counties and districts, and to those which are entirely, or in a great degree peculiar to it; the same remark may be made, and the same course ought to be pursued, in stating and enforcing the means of improvement.

The system which seems beginning to be adopted in Dorsetshire, of shortening the duration of leases, from 21 to seven years, must be highly injurious to Agricultural Improvements; and indeed, it may fairly be laid down, that one great cause of the very slow advance of agriculture in this, as well as in other counties of England, takes its rise, either from the leases being too short, or from their being clogged with restrictive clauses.

Another obstacle to improvement, which exists in Dorsetshire in common with many other counties, proceeds from the unwillingness of the farmers to adopt and persevere in those practices, and the use of those agricultural implements, which have been found to answer for a great length of time, so perfectly well in other parts of the kingdom. It is rather surprising, that in Dorsetshire, (the remark is applicable to many other counties) experiments are entered into with extreme willingness, with respect to sheep, and some of the minor agricultural

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tural implements; even such of the latter as have not the long trial of other districts to recommend them; while the introduction of light carts, drawn by one or two horses, and of two-horse ploughs, meet with very general and serious opposition. Certainly every implement and practice, which has been found to succeed in those districts of the kingdom, where climate is comparatively highly unfavourable, is at least well worth the trial in the more favoured parts of the kingdom.

The points in which the agriculture of Dorsetshire more peculiarly stands in need of improvement, may be divided into such as respect the county in general, and such as respect particular parts or soils in it.

Of the the county in general, it may be fairly asserted, that it is not well *wrought*; that is, the various applications of ploughing, harrowing, rolling, &c. are not done in that workman-like manner, which necessarily produces clean ground, and good crops.

Dorsetshire undoubtedly presents very large tracts of foul land; and the produce is by no means so high as its soil and climate, under good husbandry, would yield. The rotation of crops followed is generally founded on proper principles: in this, then, no obstacle to adequate produce can be found, but it is evident, that the most approved rotation, even on good soil, and with plenty of manure, will do but little, if the land is not kept clean.

Of the chalky district, the means of improvement seem to consist, in sowing a much greater breadth of sainfoin, and of turnips; each most valuable crops, where sheep are the great object of the farmer; and the former crop, on chalky soils, of most inestimable advantage, and which, if properly introduced into the rotation, and well managed, must render this kind of soil equal in value to the richest clay or loam.

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On the other light and dry soils of Dorsetshire, turnips ought to be cultivated to a greater extent, and with more care: the extended culture of these, seems the only point in which the sheep-husbandry of this county admits of much improvement.

With respect to the heavy soils of the county, which are under the plough, such as the Isle of Purbeck; there are three points by which they might be improved—a more regular and judicious use of lime; a more perfect working and management of summer-fallows; and a more extended sowing of red clover; nothing thrives so well on deep rich clay, such as those of the Isle of Purbeck, as red clover, and nothing ameliorates such soils more.

But after all, the great rule to be impressed on the minds of the greater part of the Farmers of Dorsetshire, is to keep their lands clean: their sheep-husbandry is good; and by following this rule, they might render their arable husbandry equally so.

CHAP. XVIII.

MISCELLANEOUS ARTICLES.

SECT. I.—AGRICULTURAL SOCIETIES.

THE county of Dorset has no Society of this kind, though there is no doubt but such institutions might be made advantageous to the agriculture of every district in England. Many particular points in husbandry might thus be made the subject of experimental investigation ; among which we conceive the drill husbandry ought to occupy a conspicuous place. Nearly all the beans and pease which are grown in the county, might be advantageously drilled and hoed, as also the turnips where the soil is not very stony, and the wheat in a great many instances. There are some objections to hoeing barley on account of the small seeds, and it has not been proved how far it is practicable to drill the clover in the rows with the barley and other spring corn, with a prospect of success, or to sow it on the stubble after the barley is harvested. These, and a great number of other subjects, should be submitted to experiment, and the results published. But it ought to be distinctly stated to those who possess the power of encouraging attempts of this kind, that those who make experiments, necessarily expend their time, if not their property, by these investigations, while the chance they have of gaining a recompense from any quarter, is very trivial indeed. It is a fact, that Agricultural Societies in general, expend the bulk of their funds in premiums for the improvement of cattle.

It

does not appear that much good can arise to society from rewards given to servants who have lived many years in the same service, &c. because such is the nature of the case, that very few will ever be induced to act with a view to merit such premiums, while the money thus expended might be applied to more beneficial purposes.

It is to be regretted, that such societies seldom offer any premiums, that there is any probability a small farmer could obtain by the most meritorious exertions.

For an Agricultural Society to prove an effectual means of improvement, it is indispensably necessary, that its more opulent members should be liberal in their subscriptions, as men of inferior property, or mere farmers, will not deem it incumbent on them to subscribe more than in proportion to their interest in the improvements that may be effected.

SECT. II.—AGRICULTURAL PROVINCIALISMS.

Barreners, barren cows.

Bartons, fold-yards or dung-yards.

Botham, the corn marigold, (*Chrysanthemum segetum*).

To breed, or Braid, to knit fishing nets.

Bob-grass, a kind of oat-grass which is often found among ray-grass.

Bidle, an instrument for beating out flax-seed.

Brakes, fluted wooden instruments for breaking the stalks of flax.

Coathed, rotten, applied to sheep.

Clum, an instrument used by flax-dressers.

Culter, a more proper name than coulter, which is in general use.

DORSET.]

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Cartee,

Cartee, carting. The Dorsetshire labourers say they are going to *cartee*, *moovee*, &c.

Carn, is merely a provincial pronunciation of corn, and which is very common in most words where *a* precedes *r* and another consonant.

Chilvers, ewe lambs.

Cue, an ox-shoe.

Chumper, an instrument to chop off the beards or awns of barley.

Devonshire ever, a name for Peacy's ray-grass in the west of the county.

Dust, the chaff of wheat is so called at Cerne Abbas.

Drags, large harrows.

To drash, *to drow*, &c. are used instead of to thrash, to throw.

Drug, the sediment of cyder.

Ee-grass, after-grass in the west of the county.

Fills, separate pans, or flits, to confine sheep on turnips, clover, &c.

Faltering iron, the same as a chumper.

Grist, corn allowed to labourers.

Greenland, a general term for pasture land.

Gay, green, as, "I prefer to cut wheat rather gay."

Gro-tous, a term which I understood to be used for land sown with clover merely for sheep feed in the spring.

Mr. Parkinson says it means "land lying in a sort of waste for one season without seeds."

Gourd, fifteen feet and one inch square.

Gund, the scab in sheep.

Rides, corn is said to *ride*, when it tillers.

Galls, are springy places.

Hatches, double gates.

To Haul, to carry, as, "They are hauling the barley."

Hisk, is the cough in lambs, &c.

Hark,

Harle, the filaments or threads of hemp or flax.

Knottbull, a bull without horns.

A Lug, a pole, or perch. It is to be found in Johnson's Dictionary.

Lappers, hair cloths, &c. in which flax seed is put, to press out the oil.

*Living*s, small leasehold farms.

To lead dung, &c., to convey it in carts.

Lobster pots, or fish-pots, are made of wicker-work, to catch lobsters, &c.

Maintenance, manure.

Nickies, very small bundles of wood used to light coal fires.

Knap, the flower of clover.

Plough, synonymous to a team. The farmers send their *ploughs* with corn to market, &c.

Pooks, small cocks or heaps of barley, &c.

Picks, the small two-tined forks in common use.

Pur-lambs, or purs, are he-lambs; both kinds take the name of hogs, as ewe-hogs and ram-hogs at a latter period, and afterwards two-tooths, four-tooths, &c.

Pepper-black, ear-cockle.

Prains, crownneedles.

Plaice, flukes in the livers, &c. of coathed or rotten sheep.

Pots, or puts, small carts used for carrying manure.

Pornies, the parts of water-meadows between the carrier and the drains.

Rapes, cole-seed, generally used in the plural.

Reed, for thatching, is unthrashed straw with the ears cut off.

Raftering, or ruftering, a kind of half ploughing of ley-ground.

Stitches, shocks, or heaps of ten or a dozen sheaves of wheat set up to dry.

Scroff, refuse or offal, as scrof-potatoes.

Skill-trefoil, seed without the husks, or milled hop-clover.

Strands, the stalks of hemp or flax.

Sull, or zull, names applied to ploughs.

Scales, fragments of the internal part of hemp stalks.

Suant, or sewant, regular, not in bunches, applied to corn.

Stone-rush, stone-brash.

Strap-grass, a kind of couch which runs much on the top of the chalky soils, perhaps it may be the *fiorin*, or *agrostis stolonifera*.

Shear, or share, as the first share, or after shear of grass, is the first mowing, &c.

Spine, ley-ground; to sow on the spine, is to sow after grass-seeds, at least in the west of the county.

Sears, the chaff of hemp.

Tutt, work by the piece is called tutt-work.

Trinity-field, a term applied to open fields under the three shift husbandry.

Twy-ripe, means twice-ripe, or irregular in ripening, as in crops of barley, &c.

Taties, potatoes.

To wheat, land is said to be sown *to wheat*, &c. instead of with wheat.

Vurk, a fork, with three large wooden or iron tines.

Waybred, a wen under cows' bellies, &c. at Dallwood.

Windmows, conical heaps of wheat laid in the field to preserve it from rain, till it is convenient to cart it home.

Weight, a wey, or 30 lb., applied to wool.

APPENDIX.

No. I.

Notices on the Geology of Dorsetshire, extracted from two Papers in the Transactions of the Geological Society; the one entitled "Observations on the Physical Structure of Devonshire and Cornwall, by Dr. Berger;"—the other entitled "A Sketch of the Geology of some parts of Hampshire and Dorsetshire," by the same Author.

THE western border of Dorsetshire is nearly the limit of the occurrence of flints in the chalk. This last, however, extends on the road to Axminster, to within four miles of Honiton in Devonshire, where it is totally lost, so that setting out from London, and going in a direct line from east to west, this formation extends 150 miles between these two boundaries. The structure of the cliffs on the sea-shore, it is true, changes several miles eastward of the western boundary now stated. Thus the Island of Portland furnishes a grit, having a calcareous cement; and Lyme Regis, a little farther west, a shell limestone;* this last I did not see *in situ*, but from the specimens I procured in that neighbourhood, it appeared to me rather to deserve the name of a shelly-calcareous

* There is also along the coast of Dorsetshire, a range of argillaceous hills, belonging to a kind which, according to M. Brongniart, are to be observed either on the boundaries of primitive countries, or on the passage to the secondary countries. *Traité Élémentaire de Minéralogie*, tom. i. p. 527.

grit. It is of a bluish colour, of a fine grain, and the particles distinct. It contains petrifications, particularly very beautiful ammonites, which are semi-transparent. This rock, in many respects, very much resembles that which forms the cliffs of Tracy on the coast of Bayeux in Normandy.*

The chalk hills in the Isle of Purbeck lie in the prolongation of a line westward from the Needles: they pass through Corfe Castle, and establish a separation between two troughs, or basins. The one on the north has a gentle slope towards Poole Harbour, the other on the south is more horizontal, extending towards the sea, on the coast of which it presents a range of rather abrupt cliffs. The soil of the latter is very fertile, while that of the former is completely barren, and covered all over with heath.

These hills pass under particular names, such as Nine Barrow Downs, which I found by the barometer to be 625 feet above the level of the sea; Challer Hill, 390; Norden Hill, 369; and East and West Creach. Between Challer and Norden Hills, stands on the top of an hillock, the fine ruin of Corfe Castle, the height of which is 207 feet. These hills consist of what is called *hard* chalk, perhaps from the greater quantity of sand which it contains†.

Quartzose loose sand, is also the matter which fills up for the most part the inclined semi-trough, which from the shallow inner harbour of Poole extends to the northern acclivities of the chalk hills by Corfe Castle. It is

* Journ. de Physique, Mars. 1807.

† It would be interesting to trace the characters of this rock more distinctly, and especially to ascertain whether it inclosed fossils which are not to be found in the common and *soft* variety. *Chaux crivante* of the French.

there

there of a whitish-grey colour, covered with heath reduced in some places to the state of turf.

Potters' Clay.—It alternates with the loose sand in the trough of Poole, where it is found in beds of various thickness at different depths. It does not effervesce with acids, and from a cursory chemical examination, which Dr. Marcet had the kindness to make at my request, we traced in it the existence of alumine, of lime, of magnesia, of oxyd of iron, and of silica. It feels greasy and smooth, its colour varies from ash-grey to blue, its fracture is a little shining and uneven. It contains sometimes cylindrical blue nodules (called *pins* by the workmen) of a more close texture, in which there is probably a greater proportion of oxyd of iron. This clay is sent to Staffordshire, where it is mixed with ground flints, and employed in the finer kinds of pottery. I found the specific gravity of one of the purest specimens from *Threshers's* clay-pit, 1. 723. Mr. Kirwan states potters' clay to be from 1,8 to 2*.

I have been informed by very competent persons, that the beds of clay in the trough of Poole do not affect any particular direction.

An earthy brown-coal, extremely friable, and which crumbles to pieces when put into water, underlies the potters' clay in the sandy trough of Poole, where it forms a seam of some thickness. It burns with a weak flame emitting a particular and rather fragrant smell of bitumen, somewhat analogous to that of the *Bovey coal*. They differ however in point of specific gravity, this being 1,153, while Bovey coal varies from 1,4 to 1,558†.

* Elements of Mineralogy, vol. i. p. 130.

† Kirwan's Mineralogy, vol. ii. p. 61.

There are frequently *pins* of clay passing through this earthy brown-coal.

I have seen at West Lulworth, another brown-coal, passing into pitch coal, in a black loose quartzose sandstone, in which it makes a very thin layer or seam. It hardly burns with a flame, but chars like wood, emitting an empyreumatic or subacid smell. The spec. grav. of the specimen I tried, was 1,340. This last species of combustible matter, as well as the former, is used by the poor people as fuel, and they may be both referred, I think, to the *spurious coal* of Mr. Kirwan; the range of the specific gravity which he gives, is that of 1,500 to 1,600*.

Marl of an earthy semi-indurated texture, which assumes spontaneously polyhedral forms, and contains nodules or kidneys of sulphuret of iron, some of which have undergone a partial decomposition. It has no lustre, the fracture is coarse, the colour of a bluish-grey; it contains numerous specks of mica, it does not effervesce with acids, though the presence of lime is readily shewn by chemical tests; it is composed also of alumina and of a good deal of oxyd of iron; it adheres slightly to the tongue, and is friable when immersed in water; it soon falls into a powder which is rather rough and dry; it decrepitates on the first impression of the fire, becomes hard, and when heated to redness, turns greyish-yellow. It forms a bed of several fathoms in thickness on the south-western coast of the Isle of Wight, where it lies between a stratum of loose quartzose-sand, and one of calcareous freestone with chert, above the source of an alum chalybeate spring. It is found also to the north-east of Alum-bay, where it alternates with sand; at High

* Kirwan's Mineralogy, vol. ii. p. 57.

Cliff in Christchurch-bay, where it constitutes most part of the cliff, and is covered only by the flint-gravel; and between Encombe and St. Aldham's Head in the Isle of Purbeck.

Coarse Shelly Limestone (Calcaire Grossier).*—This kind of rock I am rather anxious to introduce here, because it seems to constitute a formation by itself, which, I believe, was first pointed out by M. Brongniart, who has given us some very valuable information on the subject. This variety of limestone was thought to be very scarce in England, but I am now disposed to believe, that upon a further examination, it will be found to occupy a great extent of country, and will, by many persons perhaps, be considered as a continuation of the same strata or beds which exist on the opposite coast of France. I have observed it in the southern part of the Isle of Wight called the *Under Cliff*, in several places of the Isle of Purbeck, in the Isle of Portland, and, from some specimens which I have seen at the Geological Society's apartments, I have but very little doubt, that it exists also in the counties of Surrey, Sussex, Oxford, Rutland, and Somerset. In France, it forms the bottom or basis of several extensive plains; such as that of the neighbourhood of Paris, and that of Caen in Normandy.

I have seen it alternating with a calcareous sandstone, with the *oolithe*, (oviform limestone of Kirwan), and with marl: passages of it may be traced on one hand to the calcareous sandstone, and on the other to the oviform limestone. At the quarry of Tilly Wym, by Seacombe

* *Chaux carbonatée grossière; pierre à bâtir; pierre de taille* when in large block and *mâillon*, when it is in smaller masses. Brongniart, *Traité de Minéralogie*, tom. i. p. 204.

Cliff, to the east of St. Aldham's Head, and at Chapman's Pool near Encombe, as also in the Isle of Portland, it includes patches of a compact limestone of a greyish, or dark blue colour, which becomes harder as it passes gradually into a state of complete flint or chert. Although these patches of compact blue limestone effervesce with acids, they are however hard enough to strike fire with steel. I have seen at the apartments of the Geological Society, a series of specimens from the County of Rutland (Nos. 890 to 896), so very much like those of Purbeck and Portland, that they might be taken one for the other. But, generally speaking, the texture of the coarse shelly limestone is uneven and rough; it contains a great many shells, which, according to M. Brongniart, belong mostly to the tribe of the *littoral* shells. Sand also occurs either filling up the cavities of the shells, or dispersed through the substance of the limestone. It is generally calcareous, and of a dirty-yellow colour; sometimes it is siliceous, and then appears under the form of very small brown grains. In the coarse shelly limestone of Swanage, the colour is yellowish grey, and the texture somewhat resembles that of a *pisolite*: (var. of the oviform limestone of Kirwan). In the quarry of Tilly Wym, and in that of Wind Spit, a little westward of the former, it is mostly composed of shells of oysters, which have lost their outside coat. In the Portland stone, judging from the quarry which lies on the north-east of the island, the greatest part of the remains included within it, are casts of a species of *Trigonia* of Lamarck (*Hippocephaloides* of Plott) as I am informed by Mr. Parkinson; a genus of which Mr. Peron has found a living species in the Southern Seas. This stone is rather rough, on account of the many cavities left by the casts of the shells, and which cause the air contained within, to oppose a resistance to the

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the hammer, in the manner of the porous lavas : some of these cavities are however lined with crystallized calcareous spar.

The specific gravity of the different specimens of this limestone, I have found to be as follows:

From the Under Cliff in the Isle of Wight, ...	2,666
From Steeple Ashton, Oxford, ...	2,624
Wind Spit quarry, ...	2,592
Swanage, ...	2,563
Portland N.E. quarry, ...	2,563
Tilly Wym quarry, passing to a calc. sandst.	2,466
Mean spec. grav.	2,579

The ratio between the extreme points, is as 92:100; a range much less than is stated by M. Brongniart from Rondelet's experiments, viz. of 24:17*.

The specific gravity of the compact hard bluish limestone found in patches in the coarse shelly limestone, I have ascertained to be as follows:

From Tilly Wym quarry, ...	2,501
From Portland, ...	2,511
Mean, ...	2,506

Lastly, the specific gravity of a dark-blue flint or chert, from Portland, connected with the bluish compact limestone, and passing gradually into it, is 2,545.

In the quarry of Tilly Wym the flint or chert is mostly under the form of detached masses or nodules; while in the Under Cliff in the Isle of Wight, and in the Isle of

* *Traité Élémentaire de Minéral*, tome i. p. 308.

Portland, it forms continuous layers; in the latter place, their direction is that of the strata, viz. nearly from north to south, their dip being east by south.

Oviform Limestone (Oolithe).—I have observed two beds or strata of this rock; one is in the quarry of Wind Spit in the Isle of Purbeck. This quarry is open in two places. To the east, where the rock has been excavated on a very large scale, there is nothing but the coarse shelly limestone before mentioned, which as it extends to the western quarry, passes into oviform limestone. The grain of the rock quarried at this latter place, is more close, the colour uniformly white, the texture less coherent; it still however retains some fragments of shells, but they are small and broken. I found the specific gravity of one specimen 2,539.

The quarry to the north-west of the Isle of Portland, which is the most extensive, is composed almost entirely of the oviform limestone, containing but very few shells; the texture of the work is granular, the nodules very small, and united by a calcareous cement. It crumbles to pieces much more readily than the coarse shelly limestone which lies on the opposite coast of the island. The specific gravity of one specimen I found 2,464; thus giving for the mean specific gravity of the two specimens here mentioned 2,5015.

Kimmeridge Coal.—Of the bay where this coal is found, I have seen but the eastern part, about a mile to the east of Little Kimmeridge, where the cliffs are cut down rather abruptly. These are composed of a slate-clay (Kirw.) of a greyish yellow colour, finely slaty, containing both animal and vegetable impressions. The leaves of which the rock is composed, become much more evident, after
it

it has undergone some decay, or, when sound, after it has been exposed to the fire. It divides spontaneously into large tabular masses. The fracture of the rock is earthy, with many small specks and nodules of indurated clay. The outside of the rock is covered with a thin layer of calcareous spar. The specific gravity of the specimen I tried, was 2,052. The mass effervesces with acids, but the nodules of indurated clay do not.

This rock passes gradually to a bituminous shale. The first transition is to a slate-clay of a lighter or darker colour, the joints of which are covered with iron pyrites. It burns with a yellowish flame, giving out a sulphurous smell, and becomes afterwards of a light grey colour. The second transition is to a bituminous shale called *stony-coal*, the spec. grav. of which is 1,319. Its colour is dark-brown without any lustre: it effervesces slightly with acids, contains no iron pyrites, and burns readily with a yellowish, rather smoky and heavy flame. The smell is bituminous but not sulphurous. The top and bottom of the Kimmeridge coal consist of the slate-clay first described. At Little Kimmeridge, on the shore, I saw several large blocks of a very hard, compact brown limestone, having a conchoidal fracture, and displaying a few specks of indurated clay: it had an external covering of a grey earthy colour, owing no doubt to the oxydation of the iron, though the rock itself does not act in any sensible manner on the magnet. This limestone has a superficial resemblance to ironstone and to some basaltic rocks; passages however might be traced to the slate-clay just mentioned, with which perhaps it alternates. I found its spec. grav. 2,641. It was not *in situ*, but comes very probably only from a little distance*.

* The Kimmeridge coal is used as fuel by the poor people in the neighbourhood, and the ashes, spread over the meadows, are considered as a good manure.

Elevation of some places in the County of Dorset.

<i>Isle of Purbeck.</i>		<i>From the Trigonometrical Survey.</i>
	<i>By the Barometer, Height above the level of the Sea. Feet.</i>	
A hillock on Poole-beath, half a mile W. by S. of the town of Poole; and S.W. by S. of Branksea Castle, ...	102	642, reckoning the level of the sea from low- water mark.— Vide Matson's Obs. on the West. Count. vol. i. p. 18.
Nine Barrow Down, W. of Stud- land, ...	625	
Corfe-castle (village) Shipinn, ..	105	
The hill on which Corfe-castle stands, ...	207	
Challer-hill, E. of Corfe-castle hummock, ...	390	
Norden-hill, W. of Corfe-castle hummock, ...	369	
St. Adhelm's, St. Alban's, or St. Aldham's Head, ...	344	
Swyer-hill (top) W.N.W. of Encombe, ...	669	
<i>Isle of Portland.</i>		
Signal-house, a little to the N. } N. E. of the village of Chesil, }	458	
Southwell (village) S.S.W. of } the island, ...	99	
Southern Light-house, ...	64	

No. II.

On the Culture and Preparation of Hemp in Dorsetshire, and on the Growth of Sea Kale.*

DEAR SIR,

As you informed me when you was lately in Dorsetshire, that the Society of Arts, &c. were anxious to

* From "Transactions of the Society for the Encouragement of Arts, Manufactures, and Commerce, for 1811."—The thanks of the Society were voted to Mr. Way, for this communication.

obtain

obtain information concerning the culture and preparation of hemp in this neighbourhood, I am induced to send you some accounts thereof.

I fear my memorandums on the subject will not be worthy the notice of the Society, and I should scarcely have ventured to have put pen to paper upon it, if I had not uniformly found, that the persons who are concerned in the growth and management of that article, are shy of giving information. If what I have sent should induce persons equal to the task, to make the needful inquiries in this county, Somerset, Suffolk and Norfolk, (which I believe to be the parts of England where hemp is most cultivated), and make the culture more generally known than it now seems to be, I shall be much gratified. I hope, if you again visit this neighbourhood, to show you a very fine crop of wheat on the field where you last year saw the persons employed in collecting the male hemp; also another large field of exceeding good wheat, that produced hemp last year, neither of which have had any fresh manure upon them since the hemp was taken from the fields. I have added some observations on the growth of Sea Kale: this useful vegetable, growing naturally on some of the Cliffs near Bridport Harbour, and being one of the most valuable esculent plants that I know, I have found the culture of it in the kitchen-garden more easy to manage than has been generally supposed.

I have sent different specimens of the seed, and some of the natural soil, for inspection;

And remain, Dear Sir,

Your friend and obedient Servant,

H. B. WAT.

Bridport Harbour, March 1, 1811.

To C. Taylor, M.D. Sec.

Account

*Account of the Culture and Preparation of Hemp in
Dorsetshire.*

Hemp is usually sown about the 15th of May, on the best arble land, on which about twenty cart loads of good rotten dung has been spread, say about a ton to the load: this is well ploughed in, and the ground well ploughed two or three times, and well dragged and harrowed, to get the soil as fine as possible, and about two, or two and a half bushels of seed sown to the acre; what produces no seed, called by some male, or summer hemp, and by others cinner hemp, is drawn about five or six weeks after the plant comes up; it is at that time in blossom; when drawn, it is tied up in bundles, and carried to some meadow land, and there spread to ripen: when ripe and dry, it is bundled and stacked. What stands for seed has no flower that can be discovered; it is the female hemp, and is generally ripe early in September, when it is drawn, bundled up, and stowed up in the field for the seed to dry and harden, when it is thrashed out in the fields. Most commonly in Dorset, the seed is sold on the spot, at from 2s 6d. to 7s. per bushel; an acre of hemp produces eighteen or twenty bushels. In Somerset they have sometimes thirty bushels of seed to the acre. In the sowing season I have known 21s. per bushel paid for seed; when thrashed, the hemp is carried to the meadows, and spread to ripen as the other, and stacked in the same way, to prepare it for sale; it is sent to the houses of the poor in the parishes round which it is raised, to be what is called scaled, that is, each separate stalk of hemp is broken in the hand, and the hemp, which is the outside rind or bark, is stripped off, in which state it is sent to market. The scaling is the employment of old men, women, and children,

On ground well manured, ... Hemp.
Wheat.
Barley or oats.
Clover with the above.
Wheat.
Barley or oats.

But sometimes they dress the ground well for hemp every third year. The quantity of hemp sown in Dorset is very trifling, in comparison to what is sown in Somerset. In the former it is chiefly confined to eight or nine parishes; whereas very large quantities are raised in Somerset, in the parishes of Misterton, Crewkerne, Hinton, St. George, Lopen, Seavingtons, Ilminster, Dorset.] i i Stocklinch,

Stocklinch, Donyatt, Kingstone, Shipton, Beauchamp, Barington, South Petherton, Martlock, Norton, Chisleborough, Stoke-under-ham, Mont-a-cute, Odcombe, the Chinniocks, the Cokers, the Comptons, Bradford, and a great many other parishes. Mr. Emanuel Pester, of Preston, near Yeovil, is in the middle of the hemp and flax county, and he can doubtless obtain and give every information that may be wished on the subject, being so extensively engaged in agricultural pursuits himself, and so competent to give that sort of information wanted; a bounty of 3*d.* per stone on hemp, and 4*d.* per stone on flax, was for many years given by Government, but is now discontinued; it was paid by the Clerk of the Peace for the Counties; and as the late Mr. Wallace managed that for the county of Dorset uncommonly well, it is most probable that a very correct return for the county of Dorset, could be obtained from the office of the Clerk of the Peace for this county, of the quantity raised each year of both articles, during the continuance of the bounty; also from Devon and Somerset similar returns could be got.

There are large quantities of hemp raised in Suffolk, the writer thinks, near St. Edmund's Bury and Stow-market, in that county. He has been told they make linen so fine of hemp, as to be worth 5*s.* and 6*s.* per yard, and used for shirts in preference to Irish, being considered much more durable and better, so much so, as to induce the Irish to imitate the fabric, and stamp the cloth, Suffolk Hemp. It is also raised in Norfolk, in the neighbourhood of Lynn and Wisbeach, but it must be watered and prepared in some other way; indeed he is convinced that all the hemp imported from the Baltic is prepared differently from the mode used in Dorset and Somerset, and must have been swingled before it was sent to the different
ports

ports it was shipped at for this country. The giving the former bounty on the growth, and increasing it on hemp and flax, would encourage the growth; but if given on the number of acres sown, the grower, as his ground would be in high order for a crop of turnips and wheat after, might be careless about his crop of hemp, as the bounty, to be worth notice, must be worth more than the value of the seed in common years, and the labour of sowing.

Hemp in this county and the next is never sown in new ground fresh broke up, but flax-always by choice, when fresh ground can be got. Mr. John Pitfield is going to break up great part of the West Clift at Bridport Harbour, and sow it with flax this season. The writer, while on the subject of hemp, is led to mention, that when travelling in the year 1792, in the province of Massachusetts near Boston, in North America, was assured that considerable quantities of hemp were raised in the township of Sunberry, about ten miles from Boston, and that it was always raised on the same ground every year, no other crop being sown in their hemp lands, and that it was manured every year, at the rate of about ten tons of manure to the acre of hemp. Respecting seed, he cannot learn that there is any for sale at Bridport, with the buyers who purchase it up for the growers at the hemp harvest, and he expects that very little can be got from the growers round here. Somersetshire is a more likely place to get it, as he has known some of the hemp farmers to have upwards of an hundred acres of hemp in one season; round this they generally are only in a small way. A change of hemp seed is much wanted in Somerset and Dorset. Trials have been made two or three times to get it from Russia; but it is not possible to get new seed from the interior early enough in the fall at the,

shipping ports, and some old seed which has been shipped has not answered the purpose; if new could have been got, it would as generally have been used for a change, as the new Riga barrel flax seed is by the flax-growers. As the seed sown in Russia was considered a good sample, and its appearance much liked, possibly it might, at a future period, be obtained in the fall from Odessa, or some other port on the Black Sea, as it is understood that a good deal of hemp shipped at Riga and St. Petersburg grows much nearer to the Black Sea than the Baltic; or possibly the seed of the Italian hemp raised in the neighbourhood of Bologna, or that of America, might be obtained in time to answer. Perhaps tares, called by some vetches, might be cleared from the ground early enough for manuring and sowing the ensuing crop of hemp, and vetches might make it worth the farmer's attention: to this an objection was stated, which I do not just now remember. On talking with the gentleman before-mentioned, and stating the American practice, with what had passed on it with my neighbours, he said, he had long been persuaded that it was a good practice, and that he had the last season a very good crop of hemp on a piece of ground that had hemp the year before, and that he did not let the hemp stand for seed, but had it all down at the usual time for drawing the summer or male hemp, and the ground immediately sown with turnips, which were fed-off with sheep, and the ground then slightly manured, and hemp sown again at the proper season; and that he had then, October 27, 1808, a piece of turnips after his hemp, which were worth 6*l.* per acre. It is to be observed, that the acre here meant is the British acre of one hundred square poles, three hundred and four square yards each. The manure mostly used for hemp is good rotten stable dung, which is much preferred

to any other, though lime is frequently used ; but manufacturers pretend to assert, (with what foundation I cannot say,) that they can distinguish a material difference in the quality of the hemp, where lime has been used instead of dung, as from lime they say hemp is more harsh and brittle, and not of such a soft silky quality as where dung has been used. The writer has endeavoured to throw together every thing that occurs to him on the subject of the culture of hemp, which from being born and residing great part of his life in a part of the county where it has been extensively cultivated for ages, he has been able to collect ; but where it is not very easy to obtain direct information, as both the growers and manufacturers are very shy of giving any, under an idea that it might injure their own interest by assisting to extend the culture to other countries. He believes that his statement may be depended upon ; but he is no farmer, and therefore the loose hints thrown together here on the subject, may not be so clearly and satisfactorily explained as he could wish ; but if they in the smallest degree assist in encouraging the growth of an article so essential to the welfare and prosperity of the kingdom, it will afford him the most heartfelt pleasure.

H. B. WAY.

Account of the Culture of Sea-Cale, or Sea-Kale.

The mode which I consider the best for the culture of sea-cale, is to draw lines in a very dry soil and dry situation, on ground with a southern aspect, about two feet one way by about eighteen inches the other, and where the lines cross to put in three or four good perfect seeds in a square or triangle, about three inches apart ; this

may be done any time in November or December in open weather, and it will require no other care afterwards but keeping the ground clear from weeds till the autumn of the following year, when all the plants but one of the finest in each square may be taken up, which if wanted will serve to form other beds set the same distance apart. The ground in the intervals of the plants should be dug in the spring and fall of the year, taking care not to injure the plants. The leaves should be left on the plants till they fall off naturally, which will not in general be sooner than the latter end of November. In the autumn of the second year, the same attention should be paid to the plants, and to remove the dead leaves.

In the third year, about the middle or latter end of November, when the leaves have been cleared away, and the ground dug, each plant should be covered over close with a tub, pan, a heap of small stones, coarse cinders, or coarse bark, raised about ten or twelve inches over the crown of each plant, and from about the latter end of February to the latter end of March the plants will be very fine and fit for use. I prefer that which has been bleached with our round sea-gravel, about the size of large pease or beans, to any other mode whatever. The plants should be cut but once in a year, as cutting it oftener weakens and lessens the size of the plants. If it is not desired to have the plants large, they may be bleached and cut a year sooner.

I have sent a specimen of the sandy soil in which it grows naturally here, as I think the generality of gardeners are too careful, and manure the ground too highly for it. In the month of April last, after cutting my plants, I covered the ground all over, at least six inches above the crown of the plants, with this earth: they soon shot
up

up through it, and never looked finer or produced a larger quantity of good seed than that year.

I am thus particular, in order to show that this vegetable will succeed as well, if not better, in poor ground than in rich, provided the soil be dry, and care taken in the management; I speak from long experience, having been well acquainted with the management of this valuable plant from my youth. When I cut the sea-calc for use, I immediately draw up the earth with a trowel, so as completely to cover the whole of the plant; this I fancy makes them grow more luxuriantly. This plant, if properly managed, is superior to asparagus; and if more is cut than wanted for immediate use, it will keep for some days in a pan of cold water, but of course it cannot be better than when recently cut. It precedes the use of asparagus, being ready for the table in February and March.

H. B. WAY.



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